The Pacific Coast Architect

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THE PACIFIC COAST ARCHITECT

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EDITORIAL.

The Disaster at Salem, Mass.

The recent calamity at Salem recalls to the editor and no doubt thousands of others who have personally experienced the greatest of all fires in San Francisco, April 18, 19 and 20, 1906.

The time will come when laws will be arranged that responsibility in non-preparation to prevent fire hazards in building construction will be a "crime."

What is the comparison to adding a few paltry dollars in the original construction, obtaining a permanent fireproof building, compared with the total loss of the original investment, perhaps including great loss of life and adjoining property losses.

The greatest food for flames today is wooden shingles. At a recent fire in San Francisco on Polk street, on account of the high winds, the fire brands were carried from five to eight blocks away, falling as live embers.

The New York World of July 6th, 1914, has the following to say:

"SHINGLES TO BLAME"

"Massachusetts is still bending a thoughtful brow over the ruins of Salem. Everybody agrees that the one thing which contributed most to the spread of the fire was—shingles. House after house burst into flame the instant the rain of sparks touched the tinder-like shingle roofs. Tin or tile would have resisted long enough to give the fire fighters a chance and might have saved much of the town.

"In well-wooded New England, as in many other parts of the country, shingles have always been the handiest, cheapest thatch—so readily obtained, so easily put on, that many a thrifty farmer has found himself enough of a carpenter to shingle his own buildings.

"Nevertheless—a dry, weathered shingle makes about the finest kindling known. In a closely populated town a brisk wind carries flames over shingle roofs as fire sweeps over sun-burnt prairie grass.

"The Bay State is using the Salem fire to start a strong argument against shingles. **It will do the rest of the country no harm to listen."**

The Pacific Coast being the largest producing section of wooden shingles, and a home market of lumber, etc., we already have too many fire traps. New laws are required, and to be rigidly enforced. As a great percentage of fire loss can be prevented, and we include the extracts of the annual report of Fire Commissioner Charles H. Cole of Boston, Mass., for the fiscal year just closed. Mr. Cole points out that 80 per cent of the $3,105,000.00 fire loss in that city last year was preventable. He refers to two causes of the preventable fire loss—lack of enforcement of the existing laws, owing to an unscientific scattering of authority through different boards and the inadequacy of the laws with respect to the material, construction and occupancy of buildings. He advises the centralization of all authority with respect to danger from fire under one department created for this purpose only, and improvement in the laws dealing with construction, alteration and maintenance of buildings. He would permit the fining of the owners of buildings in which fires occur, owing to defective chimneys and the punishment of persons who allowed fires to originate through carelessness as guilty of misdemeanor.

One of his recommendations is a special zone in the business district in which only construction of the first class should be allowed. Other suggestions are that no more **wooden roofs** or **wooden coverings on roofs** be allowed; that all buildings of five or more stories be of fireproof construction; that no building of any kind be nearer than ten feet to another, unless all openings in the walls are suitably protected, and that no part of any third-class building be nearer than twelve feet to the nearest part of another third-class building.

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The Reliable Time-Tried Building Material

The struggle to obtain better and cheaper building materials has brought upon the market many forms and kinds of construction. But when we look about for reliable building structures, we find the owner adapting brick and steel to his use. These materials long ago passed the experimental stage and today stand supreme as materials for tall buildings. Properly handled they stand the exacting tests of modern work and exhibit a definite class of superiority. The strength of the steel is the highest of all practical materials and the record resistance to fire and weather is positively held by brick. Nothing so far has been made by man to equal these materials in the respective qualities above written of.

Department of Liberal Arts, P.-P. I. E.

The editor of "The Pacific Coast Architect" is in receipt of a letter from Mr. Theodore Hardee, Chief of Liberal Arts at the Panama-Pacific International Exposition, which has been addressed to each chapter of the American Institute of Architects, the Architectural Leagues of America and the Pacific Coast, also Architectural Clubs in the leading cities of the United States. Architects desiring to participate should communicate with the department at once; the letter is as follows, dated July 15, 1914:

"Under the Official Classification of Exhibits at this Exposition all drawings, models and photographs of completed buildings, artistic architectural details, landscape architecture and architectural engineering will form exhibit groups in the Department of Liberal Arts, which must be displayed in the Palace of Liberal Arts.

"This Department comprises fifteen groups, covering the applied sciences, in which the exhibits will be notably interesting and significant. As the advances in Architecture and Architectural Engineering have exercised a potent influence upon the improvement of conditions in economic life and the cultivation of artistic taste, the exhibits portraying this progress in the United States should be especially complete and characteristic to uphold the prestige of American ideals and effort as compared with the displays of foreign countries in the Palace of Liberal Arts.

"The opening of the Panama Canal means the inauguration of a new and prosperous era by reason of the development of new avenues of commerce, and the Universal Exposition at San Francisco in 1915 will afford a rare opportunity to display the ideas and skill of American architects to the best possible advantage. The keen interest manifested by both American exhibitors and foreign governments assures an Exposition of the most representative international character. Thirty-six foreign countries have already accepted the invitation of the President of the United States to participate, and forty-two States have likewise signified their intention to take part.

"We should be glad to know without delay whether you wish to exhibit. All exhibits must of necessity be selective in character because of the comparative limitation of space which, by reason of wider participation and the world's more extended productivity, will be more restricted than at previous International Expositions. This will emphasize the advisability of applying immediately for exhibit space.

"While there is no charge for space, exhibitors are required to erect suitable booths and likewise defray the cost of transporting, installing and maintaining their own exhibits. As the exhibit buildings are now completed and ready for occupancy, the allotment of space will commence at an early date.

"All Chapters of the American Institute of Architects, as well as the Architectural Leagues of America and the Pacific Coast, and the Architectural Clubs in leading cities of the United States, have been invited to exhibit and to post a copy of this communication in their headquarters, or otherwise convey our invitation to their members to make exhibits, individually or collectively, at this Exposition. Blank applications for space, and other information prepared for the guidance of exhibitors, will be promptly forwarded upon request.

"I would appreciate the courtesy of a prompt acknowledgment of this communication, in order that I may gain some knowledge of your intentions and make due provision for your requirements if you should decide to exhibit.

"Hoping to be favored with an early reply, and assuring you of my heartiest co-operation, I am

"Very truly yours,

"THEODORE HARDEE,

"Chief of Liberal Arts."

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Institute Offers Aid

President Wilson has been offered the active co-operation of the American Institute of Architects in the development of Washington, and for the betterment of housing conditions among those of limited means in the cities throughout the United States. This offer, says a Washington dispatch, has been referred by the President to the District of Columbia Commissioners, who are now considering to what extent and how this association can best aid in the upbuilding and beautification of the national capital.

The proposition for co-operation as conveyed by the board of directors to the President was that the board of directors of the American Institute of Architects realizes the importance and necessity of making proper provision in every city for the safe, sanitary and convenient housing of its inhabitants, particularly to those who contribute the fruits of their labor to the upbuilding of the community, and stated its belief that architecture should relate itself to the humblest human habitation as well as to all other buildings in a city. It requested the committee on town planning to urge, through its subcommittees in every locality that the architects of this country devote their earnest thought to improving the type, design and arrangement of the small and medium sized houses in all cities and suburbs and to bringing about, as far as possible, an improvement in existing conditions.

With reference, specifically, to the city of Washington, the board, "with a high sense of appreciation for what has been done toward preserving the original L'Enfant plan," expressed the hope "that equal attention will be given to the before-mentioned conditions of housing, and, desiring to co-operate with the officials in charge of the development of the nation's capital, offers to appoint a committee of five members of the institute to be known as the 'committee on the plan of Washington,' and authorizes such a committee to offer freely the aid and influence of the American Institute of Architects in all matters connected with the physical and artistic development of that city."

Commissioner Siddons has already called attention to the necessity for giving increased attention to the housing of the people in this city, and President and Mrs. Wilson are known to be deeply interested.

With the development of the commission form of government and city planning commissions in the younger cities of the country, many of them have attained considerable fame, it is said, not only as healthful residential cities, but as practical, well planned and attractive cities.

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Another Conviction of an Illegal Practitioner

On evidence presented by the California State Board of Architecture N. D., Edward F. Helms was, on July 9th, convicted before Judge Shortall of practicing architecture without a license, and was sentenced to pay a $50.00 fine or fifty days in the county jail.

Architect Wins Suit

The case of Randall M. Wedgewood, architect, against Robert A. Jorgens, both of Grand Rapids, Mich., which has invited the direct interest of every architect in that city, was closed when a jury in Judge Perkin's court at Grand Rapids brought in a verdict awarding judgment of $170 for the plaintiff.

The case grew out of a transaction in which Wedgewood furnished plans for a building which was not erected. Payment of the account, $200, was refused, and the defense in court endeavored to show that the claim was not a valid one, because the plaintiff had not complied with the city ordinance requiring architects to take out a license and to pay an annual fee.

The interest of every architect in the city was aroused, as it is said that the ordinance has not been enforced and that license fees had not been paid as provided. Had the court determined that Wedgewood's claim was invalid because no license fee had been paid other architects of the city would stand a chance to be heavy losers if advantage should be taken of the decision.

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Some Defects in Building Construction

By Nathaniel Ellery, C. E.

When a building is completed and ready for occupancy, it stands out attractively on its new appearance. Frequently, behind the exterior of this new and bright structure, there is hidden some defect of construction of which the owner is unaware. The tendency to slight work, whenever the price received for doing the construction is low or slightly above cost, furnishes the reason for much defective work.

Trimming or shaving the contract price of a building by the process of dicker or grinding competition from the owner's standpoint is surely unwise, as no one can or intends, if he knows it, work at a loss to himself. As surely as this is done as surely must be provided the closest inspection or else we must expect some defective work, perhaps cleverly concealed, but there just the same. The old saying "you get what you pay for" is most applicable in erecting buildings. Honest workmanship and honest materials are the demands necessary to obtain a good building and honest contracting methods are essential to gain this end.

Again, too rigid care and inspection cannot be given a building of our present day for so many items in building materials are not thoroughly tested by time and use so that frequently an owner is placed in a positive quandary as to a selection. For illustration, take the instance of waterproofing a modern structure. There are so many preparations for such on the market as to bewilder even the technical man. To you who have experienced the management of the erection of a building, undoubtedly many close decisions concerning materials, layouts, or methods, have been made and your structure is the result of them.

To properly decide these points, it is necessary to investigate and examine thoroughly every one of them and to carefully note what has been done along the different lines. This is no small task. We know brickwork has been used for centuries in buildings, and we know good brickwork has stood the test of time. It requires good brick, good mortar, good workmanship to make a proper job. We must demand a good mortar for a permanent construction, preferably cement tempered with lime for ease of working. Lime mortar should only be used in the lower class of structures. We know it requires the air to cure the lime mortar, but cement mortar will set up in either water or air. Neither mortar is good unless your brick is thoroughly wet with water so that the mortar waters are not absorbed immediately, leaving a mortar unfit for bonding brickwork. Your brick should be tested for strength, and all bricks falling below a certain standard of test rejected. In workmanship all bonds or joints between bricks should be thoroughly filled with mortar, otherwise the strength of the work fails to develop just as much as the joints are unfilled. If you will demand good brick, good cement mortar and workmanship that will properly wet the brick and fill the joints, you will get a construction as solid as rock with strength unsurpassed by any other material and fire resistance and damp resistance of the highest order—unequaled by any material now used in practice.

Put up brick work, joints unfilled, poor mortar, poor brick and surely the work does not measure up to any where near good construction. Mr. Owner, demand hard brick, mortar of high cement content and good workmanship.

As I now understand, it is a rule of the bricklayers of San Francisco to demand all brickwork be "rubbed up," i. e. the joints filled. This is an excellent proposal and should receive full support and commendation. How often have we seen poor brick work, the cement in the mortar largely left out and not enough attention given the brick as to its strength and weather resisting qualities, and then the brick veritably thrown into the wall. Soft brick in exterior walls should not be tolerated, as it weathers in time and absorbs too much water. It has splendid fire-resisting qualities but should be limited to such work, or as interior fillers in heavy walls or construction. Dehydrated cement mortar or burned lime mortar between the facing bricks of a wall may be readily raked out and the work satisfactorily repointed or filled.

There seems to be the idea prevalent, that no inspection is required on brickwork, but far from it. There should be rigid watchfulness on the work in order to get results. To be sure the value of brick work may be quite easily determined, but it should not be constructed without inspection. It pays in better work. Personally I have seen two jobs under the same specification—one under good inspection; the other not. After completion, an examination disclosed the fact that one was excellently done, while the other was mediocre in execution and the mortar lacked a great part of its specified value. From brickwork let us review what has been done in concrete building construction and get at, if possible, some of the remedies for its extensive defects and call to attention much defective work in this material.

Reinforced concrete used as a structural material has many uncertainties as to strength value. A chemical material such as it, deposited behind wooden forms, hidden from view during the hardening period, cannot be inspected during this time, therefore the inspection as to the mixture and the ingredients should be of the highest order. Look at the concrete building immediately after stripping of the forms and note the condition of the material. Surely the defects of workmanship show in pour lines where the concrete has but little strength, rock pockets of inferior strength, unequal density of material giving weak and strong places, columns with horizontal seams of little adhesive

strength and nearly always the metal of reinforcement out of place as calculated. The liability of too much water in the mixture, the liability of too much sand in the mixture, or too little cement or bad sand or bad aggregate, all contribute to a finished material of inferior grade. Workmanship plays an important part in the making of concrete and yet but little attention is given this point. I have seen fine sand used, richly mixed with cement and allowed to dry out rapidly in sunshine and wind, when upon examination, it crumbled between one's fingers. All this demands inspection and should one of the many items constituting the mix be neglected you lose the value of the cement. Concrete needs a dense rich mixture for resistance to water and to dehydration by heat, but such mixture shrinks more than one of less cement and consequently tends to crack more. When a concrete wall becomes checked, as many of such walls in San Francisco are, the owner is confronted with the problem of painting such surface every year or two for protection from storms and with only partial results. Better had he placed more metal reinforcement at a greater first cost than be under such a maintenance expense. Mr. Owner, in concrete work you had better buy the best materials, inspection and workmanship if you expect to realize anywhere nearly your anticipation of a good structure.

The engineer's dream of a monolithic building of reinforced concrete strikes wide of the mark of fulfillment. The present methods of handling the material with the flaws likely to occur from other sources, assuredly demands the owner be on the alert. Personally, I have dug away the concrete material in columns for two-thirds of the horizontal surface and replaced the material. This is not the best of construction, but is the best under such circumstances. Look at the vast difference between concrete cured rapidly in air and that allowed to cure slowly to get its full strength. The one is unsound with partial strength, while the other is hard and set firmly. Strict attention should be given this point. If we were to leave the forms on longer and keep damp these forms, long retaining the moisture, much better results may be realized.

Leaving out cement and using poor sand are perhaps two of the greatest causes of defects in concrete work. Too much water spoils the mix and the deposit of different batches of concrete that comes from the mixer show plainly at the finish. Of necessity we break the concrete building at or near the floor lines, and thus create defects in construction as yet not practical of avoiding.

Usually when cement exterior plastering is done the mixture is too rich in cement and therefore cracks and becomes unsightly. Use a lean mixture and avoid much of this inherent trouble. On concrete structures, the tendency now is not to plaster but spade the coarse particles in the concrete back from the surface and use surfaced form lumber, thus creating a smooth surface of the finer materials which are solidly a part of the body of the concrete.

In the fireproofing of steel frames with concrete, much poor concrete may be seen. All porous places practically have no fire resistance and therefore a very small value in this position. Again, if you will take the time to personally investigate and note the closeness of the reinforcing metal to the surface of the concrete, especially the underside of floor slabs, one cannot but be impressed with this defective feature.

It has been the desire of the writer to call attention to some of the defects in present building practice and offer some guidance to avoid them in the future.

Architectural Features at the P.-P. I. E.

By Waldemar H. F. N. de Bille.

Imagination is the keynote of the architectural scheme of the Panama-Pacific International Exposition and each of the marvelous dream-palaces and wonderful courts represents a master-piece of the designing architect. Like an enchanted city the Exposition has arisen from the shores of the beautiful Bay of San Francisco, and towers and minarets and domes of ten completed exhibit buildings cast their intermingling shadows in the reflecting waves.

In direct contrast to former expositions the architecture of the Panama-Pacific is not wholly in one rigid and inflexible style, but displays the various types which have won renown in many eras in many different countries.

Unhampered by the limitations of inviolable convention, the architects have given free rein to their imagination and many of the buildings and courts represent the realization of dreams which few of the designers had hoped ever to see actually constructed. There has never lived an architect who has not mentally seen visions of palaces which expressed his ambition. The understanding of this imaginative side of architects on the part of the Exposition executives has caused the construction of an exposition such as the world has never seen. In the architectural scheme of the Exposition there is a touch of the mysticism of the Orient, the realism of the Hellenic period, the beauty of the old Spanish school, the luxuriousness and abandon of the Italian, and the massive solidity of the Gothic.

In the "Walled City"—a group of eight exhibit palaces—the buildings were designed by the Exposition's engineers and an architect was commissioned to prepare the plans for the exterior walls, while the interior walls were designed by the architects of the various courts.

The site of the Exposition consists of a 635-acre strip of land extending for almost three miles along the shores of the Bay of San Francisco, its western end being within a stone's throw of the Golden Gate. The grounds have been divided into three parts; the western one containing athletic and aviation fields, international military camping grounds, drill-grounds and state and foreign pavilion sites. On the east is the Zone, the concessions district, with its hundred or more amusement features which will cost $10,000,000.00 to construct. Many of these are practically completed.

In the center is the exhibit buildings space, which with the exception of the Palace of Fine Arts is completed. The main group of the exhibit palaces, eight in number, is known as the "Walled City" and includes the Palaces of Varied Industries, Mines and Metallurgy, Agriculture, Liberal Arts, Transportation, Manufactures, Food Products and Education. As the buildings are all of the same height and identical in placement of domes and the courts between are spanned by huge arches which join the palaces together, the appearance of a huge structure under one roof is given, and hence the name "Walled City."

The central court is known as the Court of the Universe and in this are the magnificent sunken gardens capable of seating 10,000 people. Designed by Messrs. McKim, Mead and White of New York, the court

presents many beautiful features. The two great arches, one at the western entrance—the Arch of the Setting Sun—and the other at the eastern—the Arch of the Rising Sun—are perhaps, the most striking of these. Each is surmounted by a massive group of statuary, 42 feet high, one entitled "The Nations of the East," and the other "The Nations of the West."

The Court is 900 feet by 500 feet and resembles in shape the great plaza approaching St. Peter's. On the south the court is entered through an archway under the huge Tower of Jewels, 435 feet high, topped by a sphere 17 feet in diameter. The tower is of all steel construction and will on hot days be four inches higher than on cool days. The shaft is pyramidical in shape and covered with rich carvings and pieces of sculpture. The base is 125 feet high and it is through this that the vaulted archway has been constructed. The general details of the court are of the Italian Renaissance with a suggestion of the Byzantine influence, while the idea of the east and west arches was inspired by the triumphal arches of Imperial Rome.

The most beautiful of the courts is the Court of Abundance, designed by Louis C. Mullgardt of San Francisco. In no other specimen of architecture at the Exposition has imagination played the part that it has in this court. Spectacular to the extreme the details and general ensemble will hold the visitors spell-bound with admiration at the daring of the conception and the masterly manner of execution.

The Court of the Four Seasons in the western half of the "Walled City," designed by Henry Bacon of New York, was recently completed. There are some exceptionally fine specimens of sculpture in that court. It is believed that Hadrian's Villa was the source of Mr. Bacon's inspiration.

By the use of the excellent imitation of Travertine marble, invented by Paul Denivelle, for the treatment of all the exteriors of the Exposition, the suggestion of stucco or plaster is eliminated and the impression given of a dream city of palaces constructed of rare marble, soft in tint and tone.

Notes of contrast to the beautiful soft tones of the marble are gained by the integral castings of columns in what appears to be red sienna or Numidian marble, or a verde antique in bronze or gold. The stratified texture of the Travertine is reproduced even in these.

The designers of the Palace of Machinery, one of the largest wooden buildings ever constructed, was influenced by the Roman baths and thermae. The composition is essentially Roman and the decoration while classic in design is suggestive of modern machinery and invention. The principal architectural features are the three central longitudinal bays and three transverse bays crossing at the center of the building. On either side of the longitudinal naves is a secondary bay. The building is 967 feet long, 367 feet wide and 136 feet high.

The Palace of Fine Arts, which is not yet quite completed, is curved in plan with its east and west elevations forming arcs. The building is 950 feet long and 135 feet wide.

It is situated about 400 feet from the west wall of the walled city and the wings half-encompass an immense pool of still water which will reflect the architectural beauty of the building. As this building will house valuable art treasures it was necessary to construct it in a fireproof manner. The construction consists of a steel frame supporting the roof of skylights and thin concrete slabs with walls of cement plaster two and one-half inches thick. The exterior walls are finished in the Travertine marble. The building cost approximately $600,000.

The Palace of Horticulture will appeal to the artistic sense more, perhaps than any of the other creations on the grounds. The composition is Saracenic and similar in relation to the arrangement of its dome and minarets, to the Mosque of Sultan Ahmed I. In detail and ornamentation the suggestion is of the seventeenth century French Renaissance and the wooden trellis work is derived from the architecture of the Louis XIV period in France. The immense dome, 185½ feet high and 152 feet in diameter, is the dominant feature and is covered entirely with glass.

The Festival Hall, now being constructed, has the usual theater arrangement of a foyer in front and the stage behind a circular auditorium. As most of the theatrical features of the Exposition will be staged in this building, especial attention has been paid to the acoustic properties. The plan of the building was evidently derived from a study of the Theatre des Beaux Arts type of French architecture and has handled it in an exceptionally successful manner.

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Progress at the P.-P. I. E.

By Hamilton Wright.

Nine huge exhibit palaces have been completed at the Panama-Pacific International Exposition at San Francisco. Altogether there will be thirteen main structures on the Exposition grounds, and an auditorium to seat 12,000 persons and to cost more than $1,300,000, is under construction at the Civic Center of the city.

The result of the work fulfills every expectation of the commission of famous architects to whom was entrusted the Exposition design. To blend into and fit in with the impressive natural surroundings of the site at Harbor View, the great hills that encircle the grounds on the south, east and west, the harbor on the north, with its islands, and beyond the Golden Gate, it was planned to produce a single superb architectural design and the plan has been carried out.

The Exposition grounds which face the harbor for almost three miles are occupied by three great groups of buildings. In the center are the exhibit palaces; upon the east is the amusement section, and on the west and nearest the Golden Gate is the section devoted to the pavilions of the thirty-six nations that are to take part and of the states.

From the heights of Belvedere, four miles across San Francisco harbor, the vast copper-green domes of the main palaces are seen to reach more than half way to the first rims of the great encircling hills at Harbor View. Glints of gold and jade and sapphire are splashed over the buildings in brilliant, riotous colors that, in the distance, melt together in a vast mosaic.

In the center group eight of the exhibit palaces are joined in a rectangle. Four of the buildings face upon a 400 feet wide esplanade upon San Francisco harbor and four face the South Gardens between the main group of buildings and the Exposition boundaries. The four buildings facing the harbor from east to west are the palaces of Mines and Metallurgy, Transportation, Agriculture and Food Products. To the south, completing the group, are the palaces of Varied Industries, Manufactures, Liberal Arts and Education. The buildings are identical in height. Their architecture as seen from afar is also similar and it is only when one gets close at hand and within the courts that the divergencies are apparent.

The dimensions and costs of the eight buildings are:

Palace.	Size Linear Ft.	Area Square Ft	Cost.
Mines and Metallurgy	451 x 579	252,000	$359,445
Transportation	579 x 614	314,000	481,677
Agriculture	579 x 639	328,633	425,610
Food Products	424 x 579	236,690	342,551
Varied Industries	414 x 541	219,000	312,691
Manufactures	475 x 552	234,000	341,079
Liberal Arts	475 x 585	251,500	344,180
Education	394 x 526	205,100	425,610

Flanking this group of eight structures upon the east is the Palace of Machinery, costing more than $600,000. This was the first of the Exposition palaces to be completed. Its interior arrangements consists of three north and south aisles each 136 feet in height and 76 feet in width, extending the entire length of the building, 967.8 feet. Three transverse aisles, each 126 feet long and 75 feet wide, run east and west through the center, intersecting the north and south aisles.

Flanking the group upon the west is the Palace of Fine Arts, which is separated from the groups by a lagoon which it partly envelops and which is bordered by flowers, shrubbery and trees, giving the effect of a forest lake in the tropics fringed with rich shrubbery and palms. The building describes an arc 950 feet in length and its area is 205,000 feet or nearly five acres. The Palace of Fine Arts is of steel and concrete and is fire and burglar proof.

Opposite the Palace of Education, in the South Gardens, is the great Palace of Horticulture. This huge structure covers approximately five acres and in architecture is Saracenic. Its most prominent feature is a steel dome 186 feet in height and 152 feet in diameter, covered with wire netting glass. The dome is surmounted by a half-globe, "the flower-basket," 26 feet in height and weighing twenty-eight tons. During the Exposition the half-globe will be planted with flowers of all kinds. At night the dome will become one of the most spectacular features of the Exposition. Kaleidoscopic lights from within will play upon the glass, giving the giant sphere the effect of a huge iridescent soap bubble. South of the Palace of Varied Industries and also in the South Gardens Festival Hall, a rendezvous for conventions in 1915, is under construction.

The eight exhibit palaces forming the rectangle are divided by three avenues running north and south and one east and west. At the intersection of the east and west avenue with the north and south avenues lie three great courts of honor, the walls of the four buildings surrounding each court being indented to form the oval of the court. In the center of the group is the great Court of the Universe; on the west, paralleling the Court of the Universe, is the Court of the Four Seasons and on the east is the Court of Abundance. Vast colonnades encircle the courts, running from their openings on San Francisco harbor back to the courts themselves. From almost any point of view, the visitor while traversing the courts will gain flashing glimpses of the blue harbor between the lofty colonnades.

The Court of the Universe is 750 feet in width by 900 feet long and resembles somewhat in shape the great plaza approaching the Church of St. Peter at Rome. The effect of the court is magnificent. Corinthian columns encircle it. The walls of the palaces behind the columns are colored a burnt sienna, while the vaults of the corridors are ultramarine blue. The columns are the shade of the exhibit palaces, a faint ivory yellow, the color of imitation Travertine stone. The columns of the Court of the Four Seasons are Roman Ionic, modified with a touch of modern detail. This court is 340 feet square and opens to the north on San Francisco harbor by a colonnaded avenue 473 feet long and 173 feet in width. Through a passage in a great niche or half-dome at the south end of the court it opens into the Court of Palms.

The east court or Court of Abundance is similar in size and shape to the Court of the Four Seasons. An arcade, dominated by a great Oriental tower, 270 feet in height, upon the north avenue of the court, encircles the court. Between the courts along the intersecting east and west avenues are great open patios, where the ornamentation of the walls of the palaces is very lavish. The patios are cut off from the courts by huge colonnades, so that each presents a distinctive scheme of color and decoration. The prevailing decoration of these vast open aisles is Pompeiian with shades of green and terra cotta, or robin's egg blue and Venetian red blending in marvelous mosaics.

(Continued on page 70)

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Clift Hotel

Work of finishing the imposing Clift Hotel, at the southeast corner of Geary and Taylor streets, the steel frame of which was completed some time ago, has started. The magnificent new hostelry will soon be ready for occupancy. It will be one of the most richly finished and furnished hotels in this country. Revival of business and betterment of conditions generally is displayed strikingly in the fact that work of completing it has been taken up. The building will be ready for occupancy by the time the fair opens. Geo. A. Applegarth is the architect and the Clift Realty Co. are the owners.

The construction is Class "A" and the building has one of the strongest steel frames in San Francisco. The style of the exterior will be of Italian Renaissance, and materials of construction will be terra cotta and light cream brick, with bronze for the marquee and entrance doors.

The first floor will contain a spacious lobby, with the main entrance on Geary street. Adjoining the lobby is the office, and the main dining-room, breakfast-room and children's dining-room. The finish of the main lobby will be in Tavernelle marble, carved caen stone for the walls and columns, and the floor of inlaid marble.

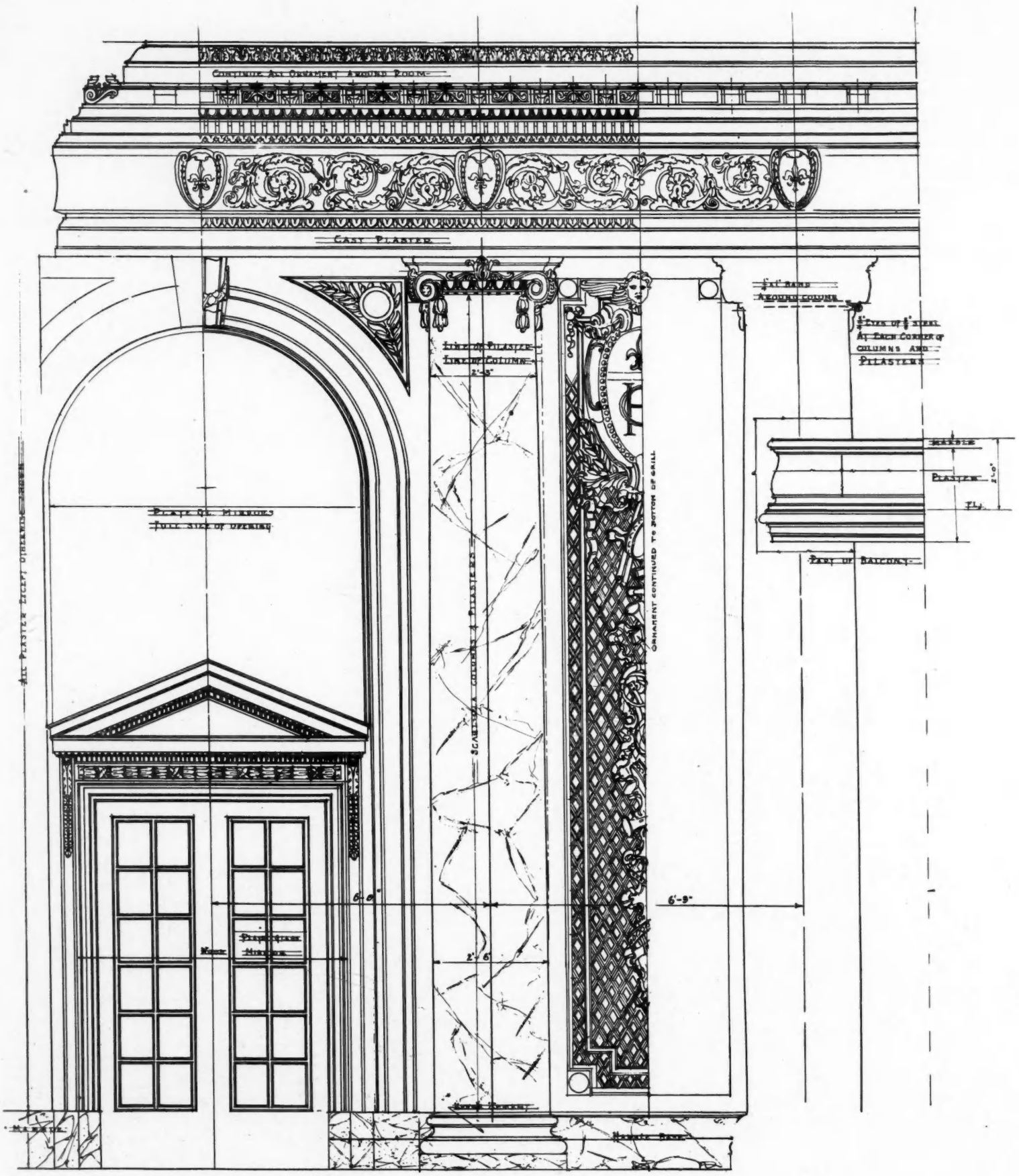
The beamed ceiling will be richly decorated in old gold and subdued colors. At the easterly end will be a large fireplace, with a mantel of carved stone and marble. The main dining-room will have Tavernelle marble columns and pilasters, and the walls and ceiling decorated in a general tone of old ivory, with a suggestion of color in the ornamental features.

The buffet, which is entered from Geary street, will have the walls of quartered oak paneling, a richly ornamented ceiling and the floor of tile and marble.

The banquet rooms will be on the mezzanine floor. From the second to the twelfth stories are the guests' rooms, which are arranged in suites with spacious parlors. The bedrooms will have commodious and well-equipped dressing closets, and the baths will have the most modern fixtures and tiled floors and walls.

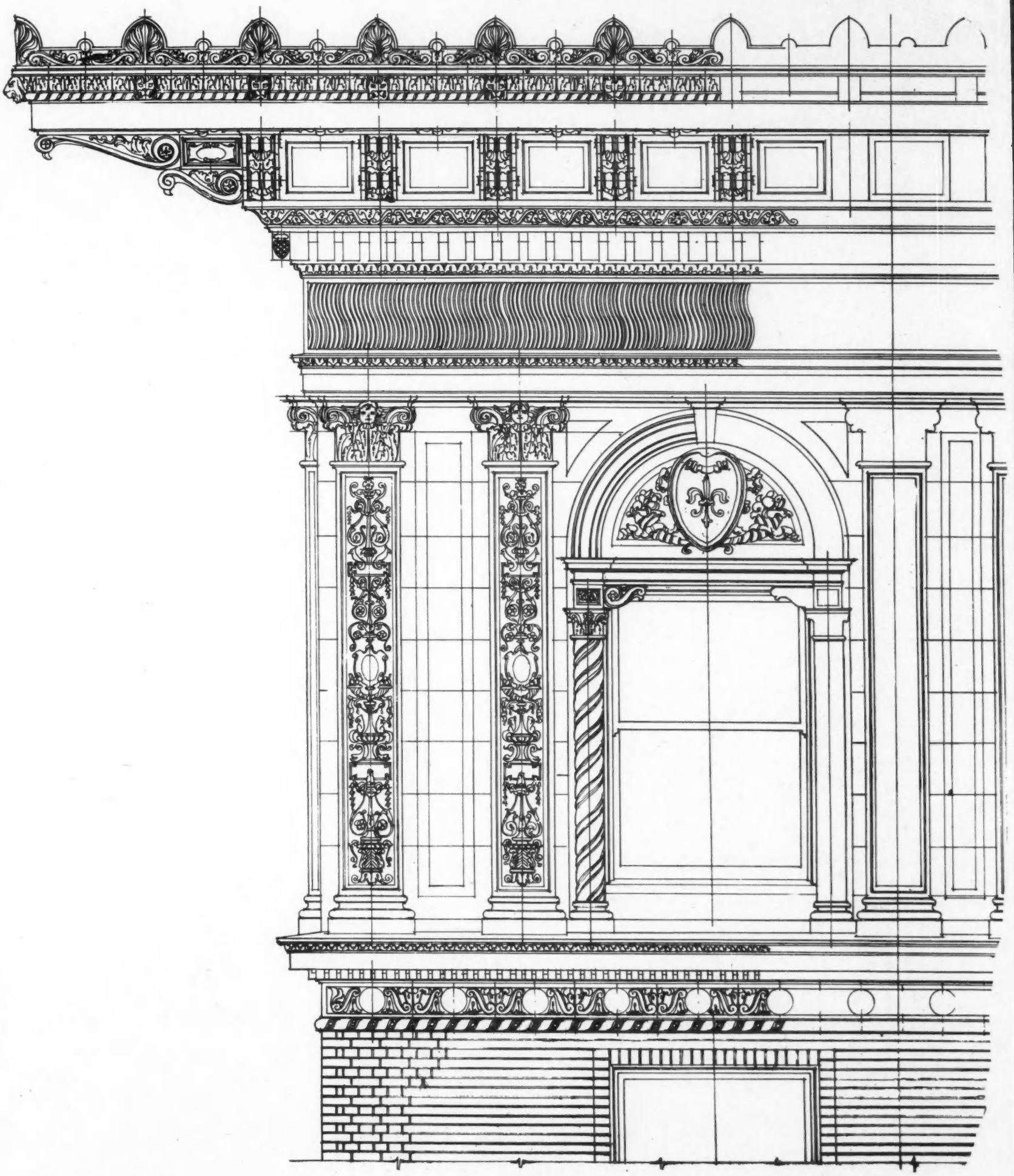
The elevators will have safety appliances of such design as to absolutely preclude the possibility of accidents. Every modern feature for the comfort and convenience of the guests has been incorporated in the building, and will place it on a par with the leading hotels of the East.

Clift Hotel. Owner, Clift Realty Co.
Geo. A. Applegarth, Architect, San Francisco



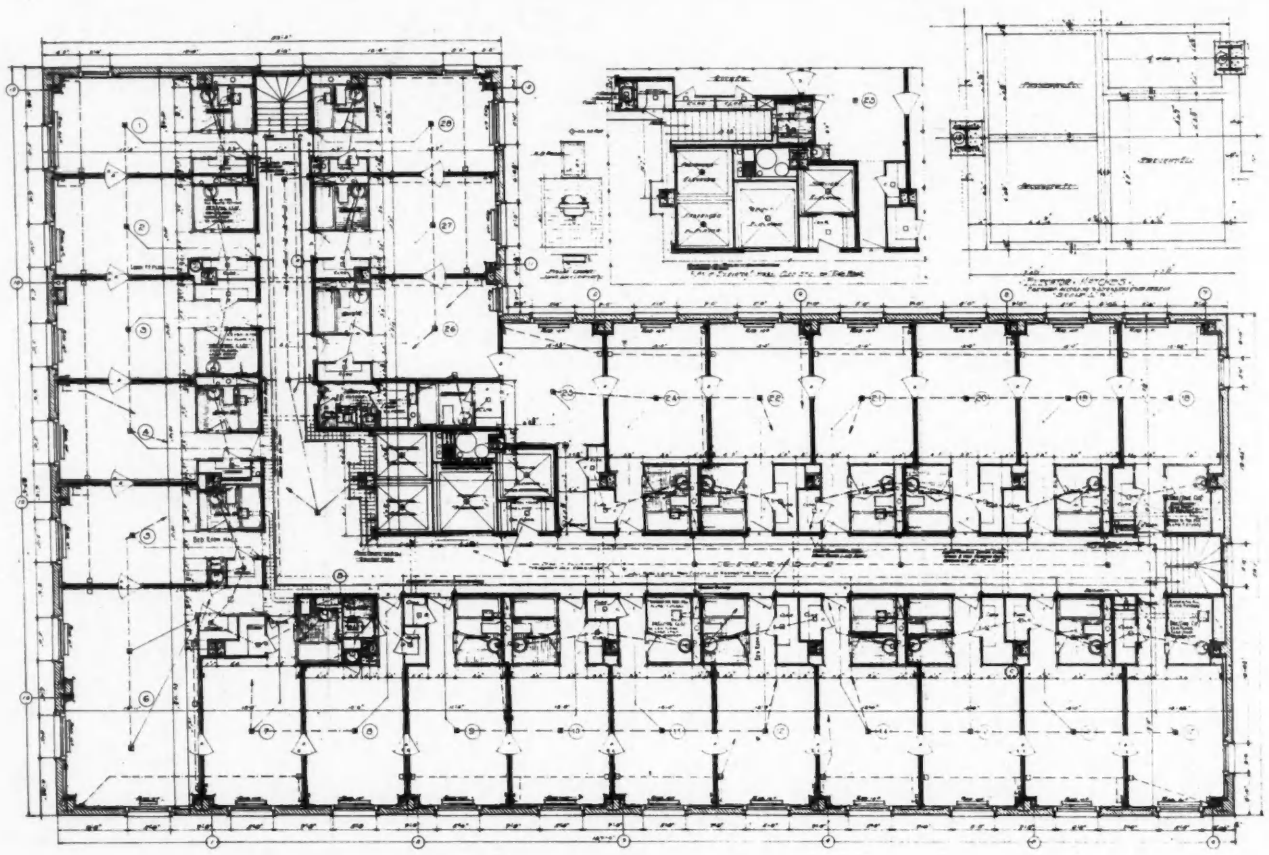
Scale ⅜" to the 1' 0"

Detail of Dining Room, Clift Hotel
Geo. A. Applegarth, Architect, San Francisco

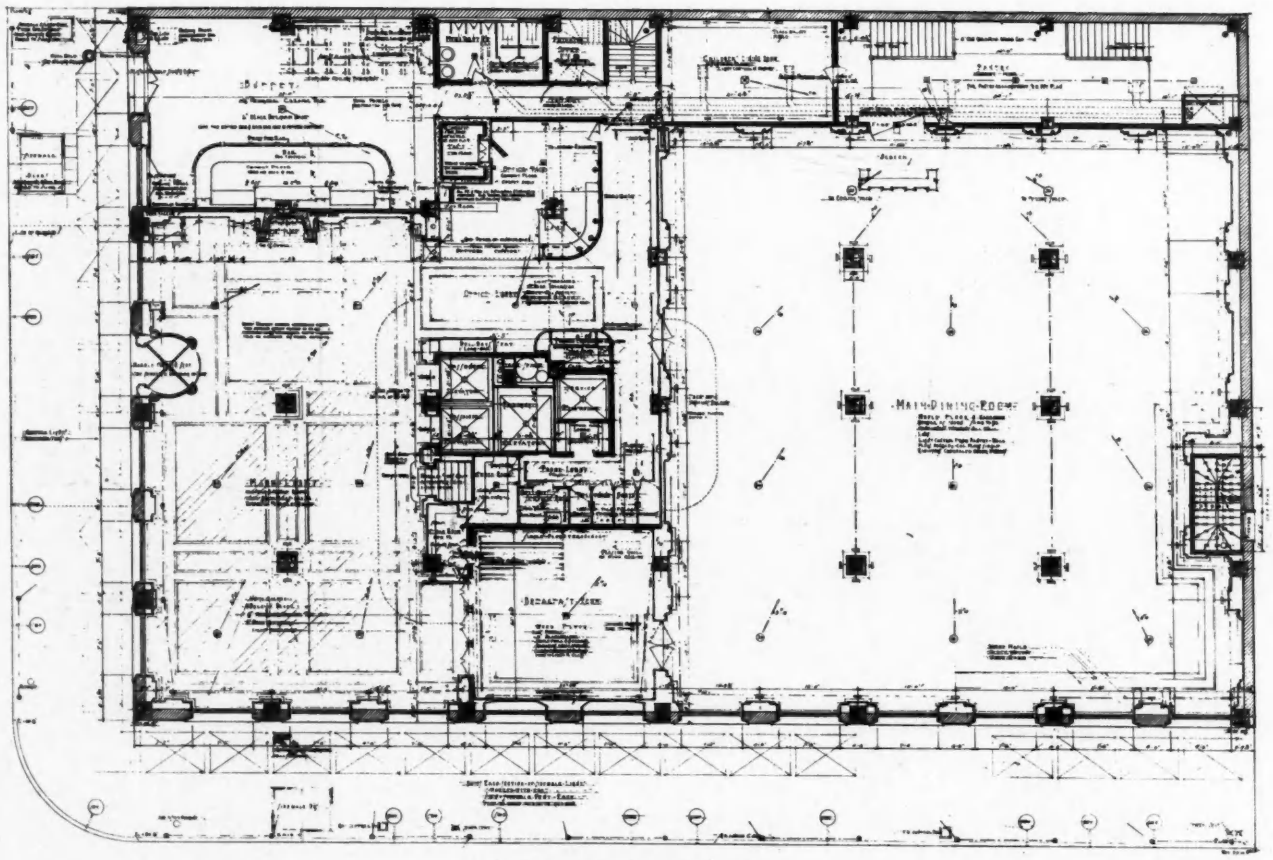


Scale ⅜″ to the 1′ 0″

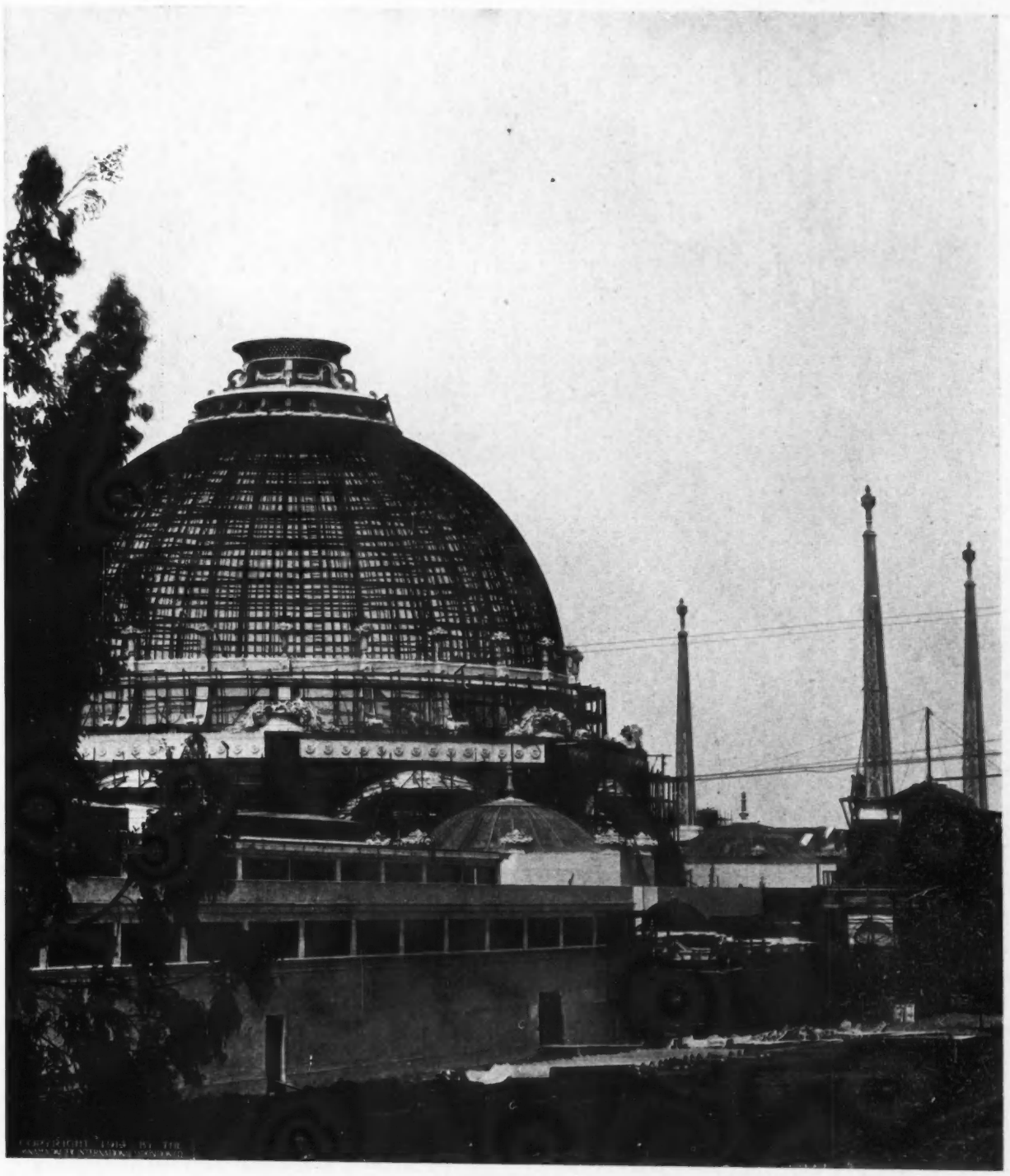
Detail, Twelfth Story, Clift Hotel
Geo. A. Applegarth, Architect, San Francisco



Typical Floor Plan, Clift Hotel



First Floor Plan, Clift Hotel
Geo. A. Applegarth, Architect, San Francisco

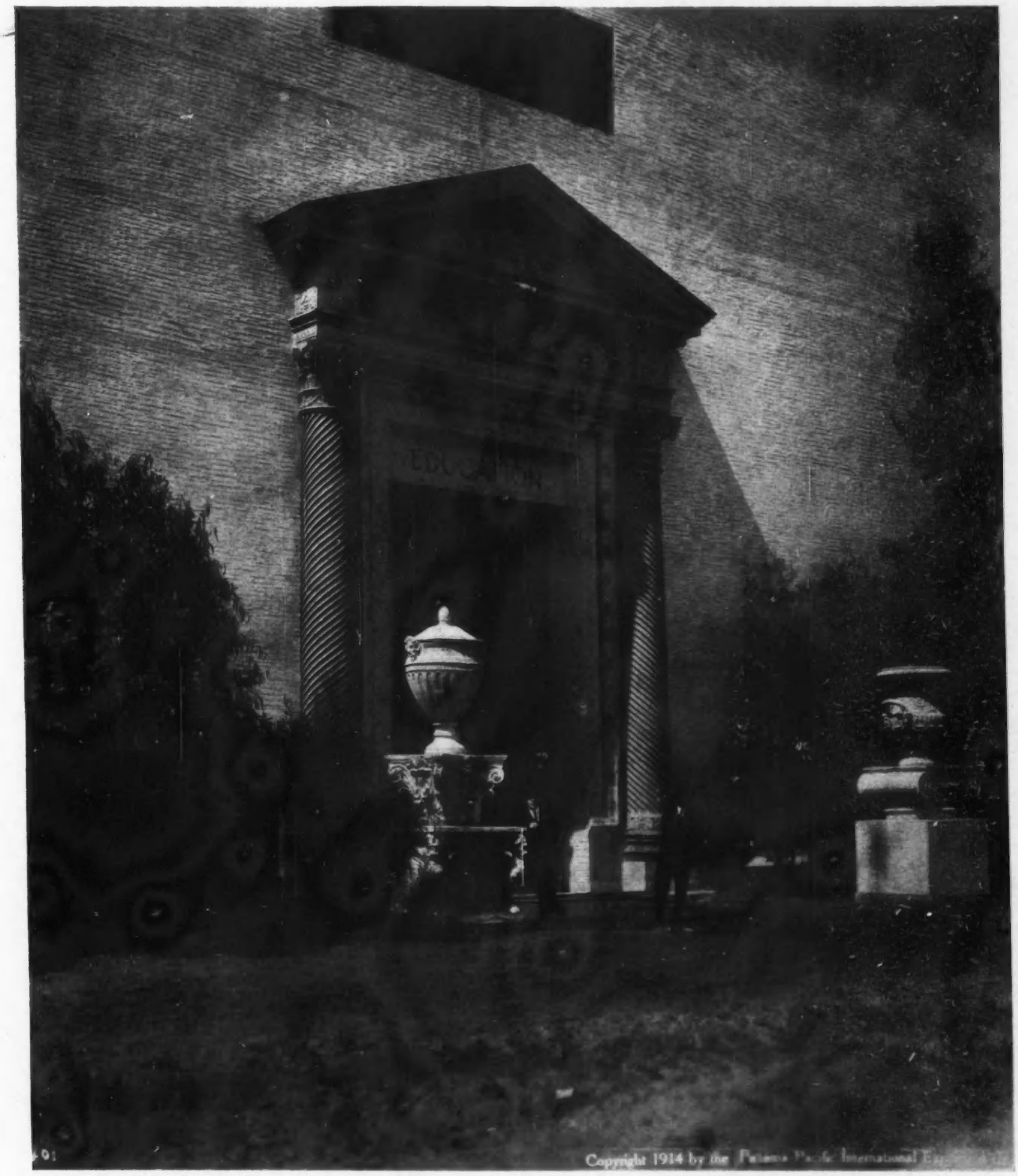


Palace of Horticulture, P.-P. I. E.
Bakewell & Brown, Architects, San Francisco

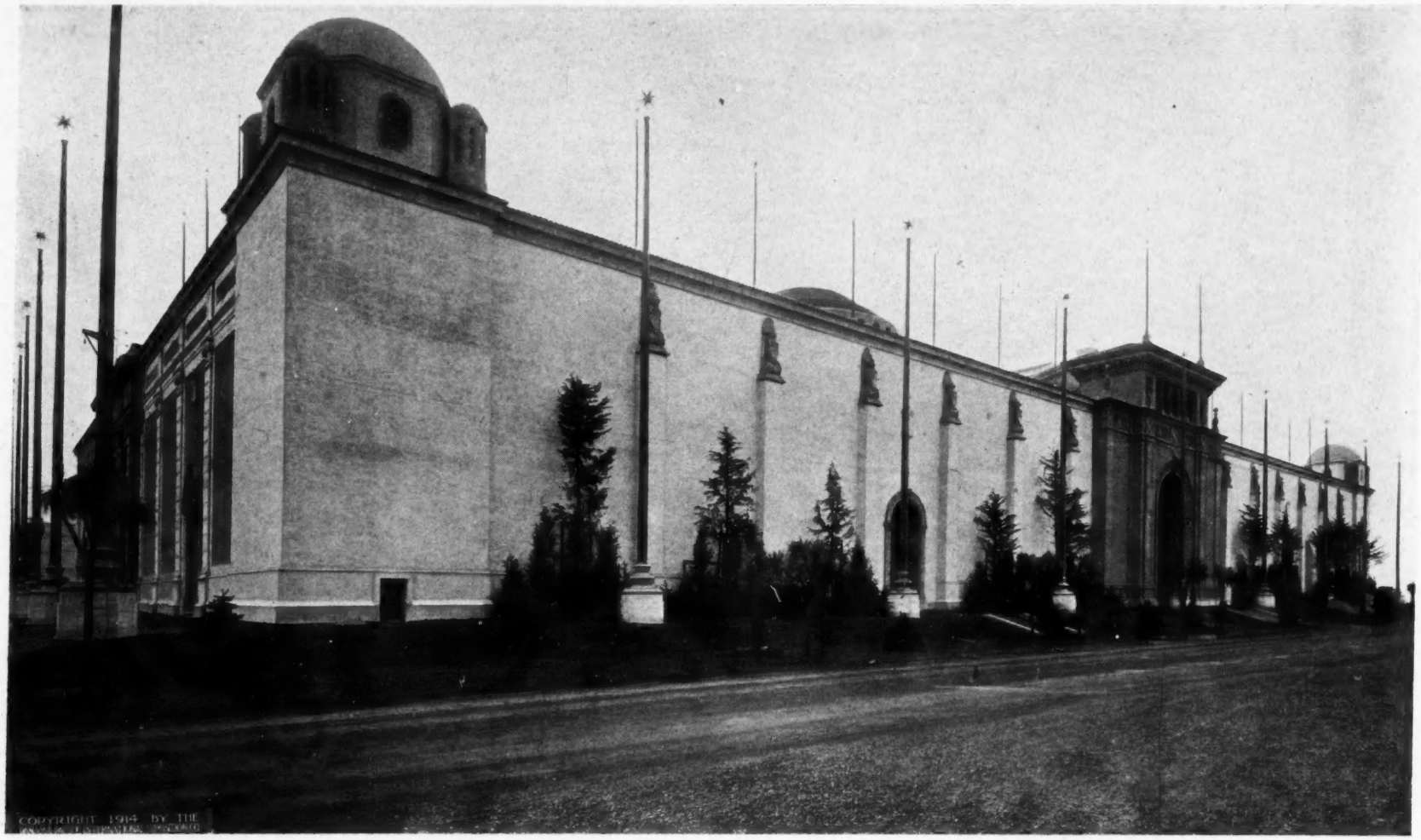
Colonnade of Court of Four Seasons, Palace of Agriculture, P.-P. I. E.
Henry Bacon, Architect, New York City

Palace of Education, P.-P. I. E.
Bliss & Faville, Architects, San Francisco

Small Doorway, Varied Industries, P.-P. I. E.
Bliss & Faville, Architects, San Francisco



Small Doorway, Palace of Education, P.-P. I. E.
Bliss & Faville, Architects, San Francisco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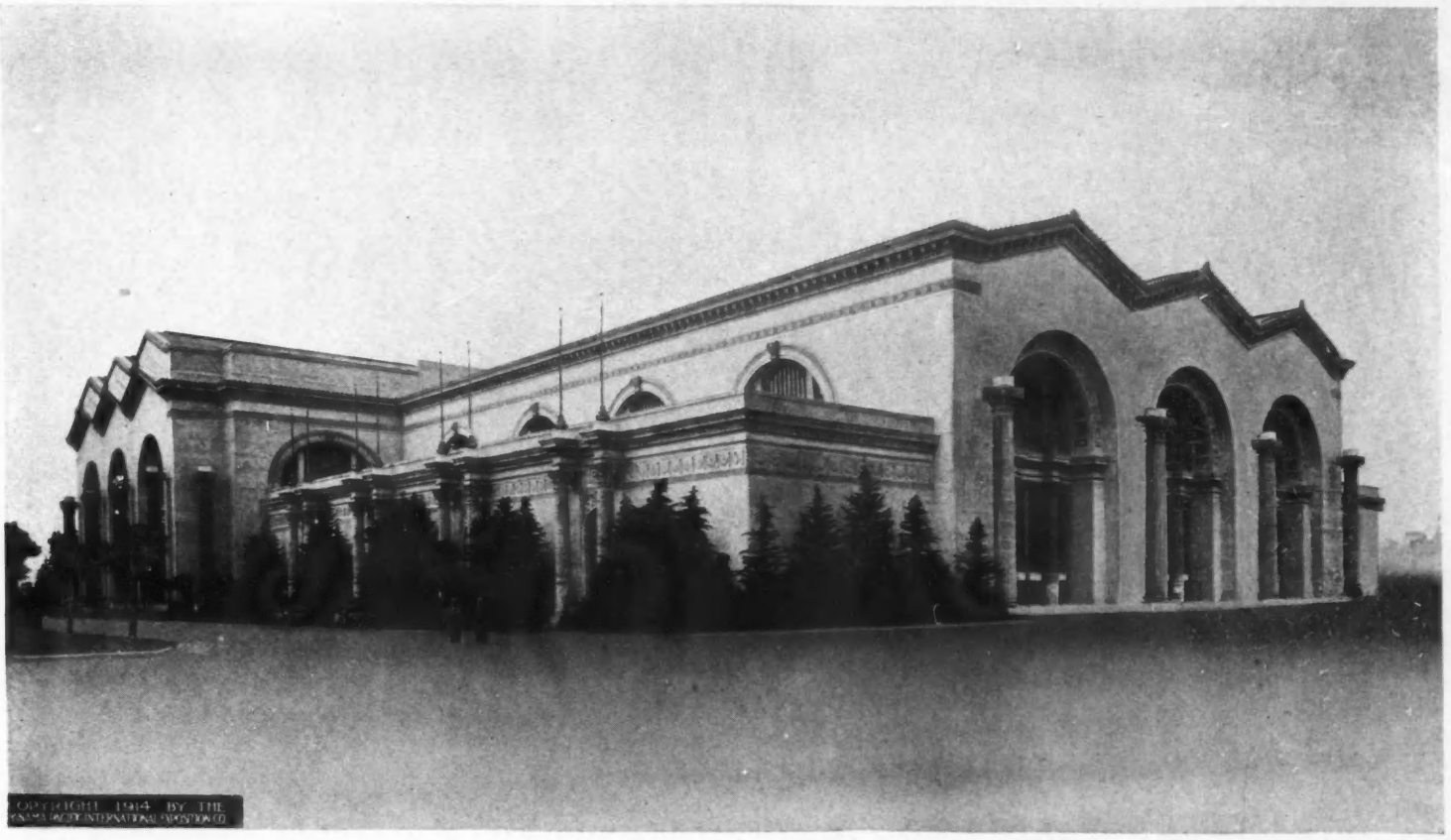
Palace of Mines, P.-P. I. E.

Bliss & Faville, Architects, San Francisco

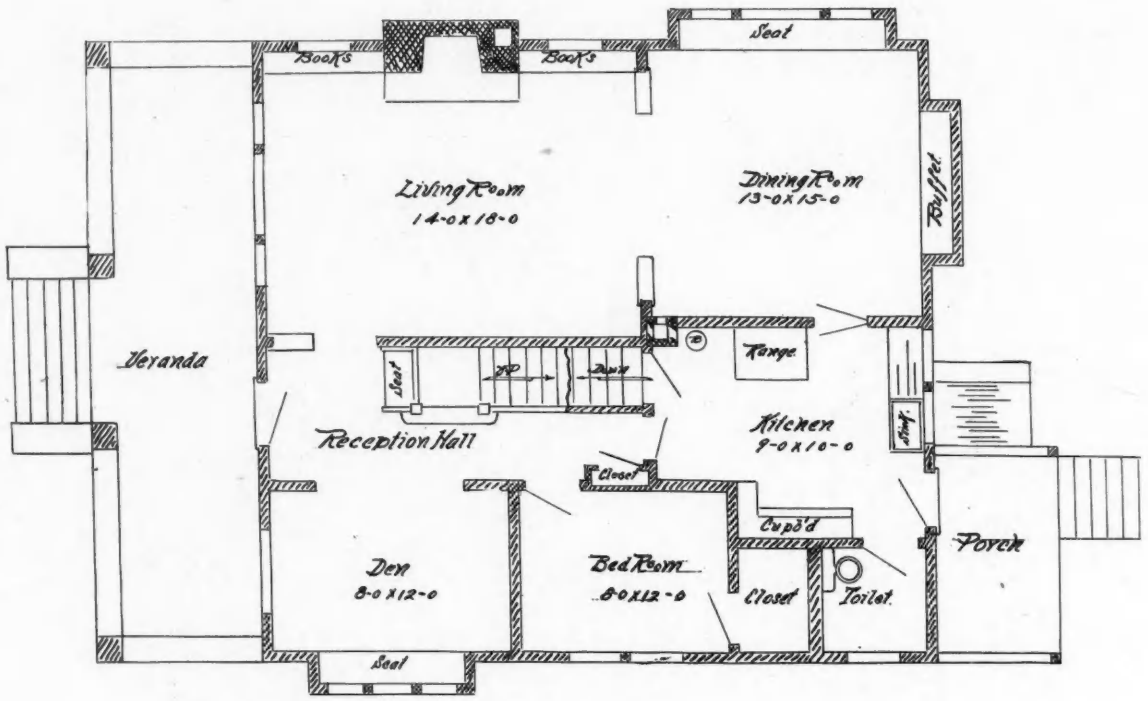


Palace of Machinery, P.-P. I. E.
Ward & Blohme, Architects, San Francisco

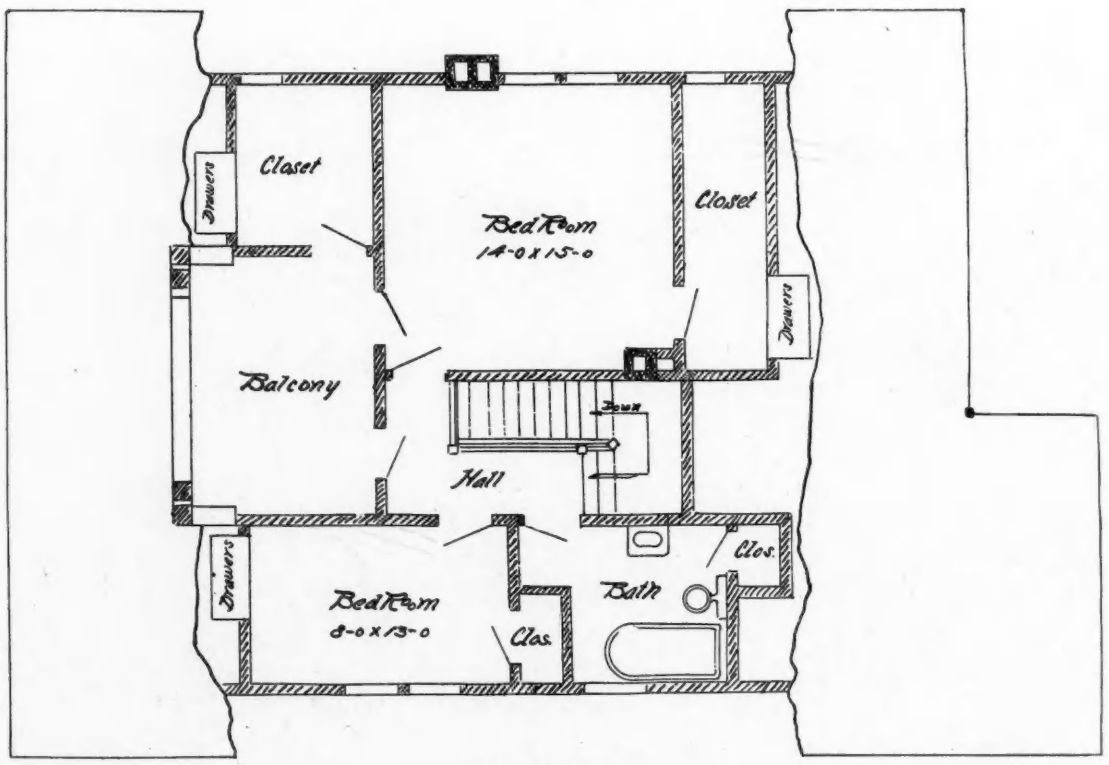
Vestibule, Palace of Machinery, P.-P. I. E.
Ward & Blohme, Architects, San Francisco

Palace of Food Products, P.-P. I. E.
Bliss & Faville, Architects, San Francisco

Residence of M. L. Pershall, Spokane, Washington
Mr. W. J. Ballard, Architect



First Floor Plan

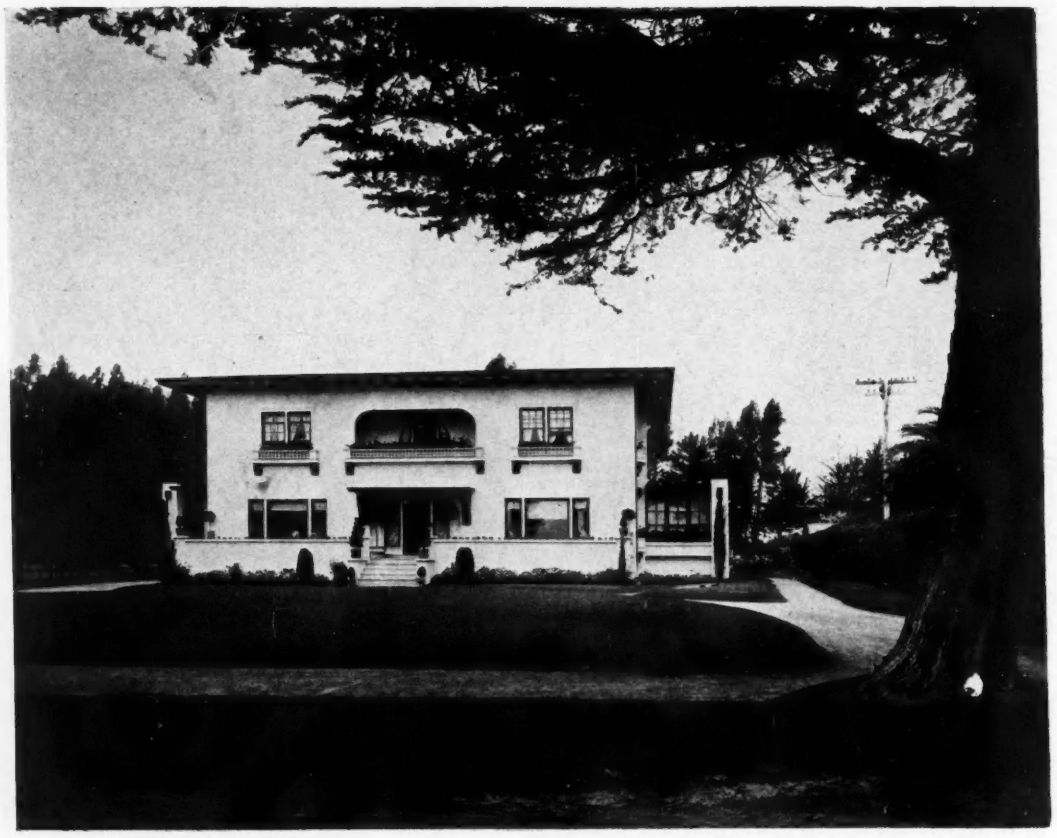


Second Floor Plan

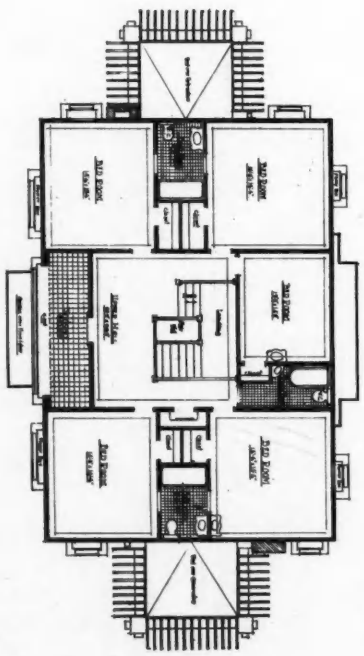
Floor Plans—Residence of M. L. Pershall, Spokane, Washington
Mr. W. J. Ballard, Architect

Dining Room—Residence of M. L. Pershall, Spokane, Washington
Mr. W. J. Ballard, Architect

Living Room—Residence of M. L. Pershall, Spokane, Washington
Mr. W. J. Ballard, Architect



Residence, T. H. and F. Davis, Cliff Drive, Santa Cruz, Cal.
Architect, Chester H. Miller, Oakland, Cal.



Second Floor Plan

First Floor Plan

Residence T. H. and F. Davis
Chester H. Miller, Architect

"THE PACIFIC COAST ARCHITECT" is the official organ of the San Francisco Chapter of the American Institute of Architects.

San Francisco Chapter, 1881—President, G. B. McDougall, Russ Building, San Francisco, Cal. Secretary, Sylvain Schnaittacher, First National Bank Building, San Francisco, Cal.
Chairman of Committee on Public Information, William Mooser, Nevada Bank Building.
Chairman of Committee on Competition, Geo. B. McDougall, 235 Montgomery St.
Date of Meetings, third Thursday of every month; annual, October.

OTHER PACIFIC COAST CHAPTERS OF THE AMERICAN INSTITUTE OF ARCHITECTS.

Southern California Chapter, 1894—Vice-President, A. C. Martin, 430 Higgins Bldg., Los Angeles, Cal. Secretary, Fernand Parmentier, Byrne Building, Los Angeles, Cal.
Chairman of Committee on Information, W. C. Pennell, Wright & Callender Bldg., Los Angeles.
Date of Meetings, second Tuesday (except July and August), (Los Angeles).

Oregon Chapter, 1911—President,Morris H. Whitehouse, Wilcox Building, Portland, Ore.
Secretary, Ellis F. Lawrence, Chamber of Commerce Building, Portland, Ore.
Chairman of Committee on Public Information, Ellis F. Lawrence.
Date of Meetings, third Thursday of every month, (Portland); annual, October.

Washington State Chapter, 1894—President, James Stephen, 726 New York Block, Seattle, Wash. Secretary, Arthur L. Loveless, 513 Colman Building, Seattle.
Chairman of Committee on Public Information, Chas. H. Alden, 513 Colman Bldg., Seattle (till further notice send all communications to Arthur L. Loveless, 513 Colman Building, Seattle.)
Date of Meetings, first Wednesday (except July, August and September), (at Seattle except one in spring at Tacoma); annual, November.

Colorado Chapter, 1892—President, Geeorge H. Williamson, 528 Majestic Bldg., Denver, Colo. Secretary, Arthur A. Fisher, 459 Railway Exchange Building, Denver, Colo.
Chairman of Committee on Public Information, Arthur A. Fisher, 459 Railway Exchange Bldg., Denver, Colo.
Date of Meetings, first Monday of every month (Denver, Colo.); annual, September.

THE AMERICAN INSTITUTE OF ARCHITECTS.
The Octagon, Washington, D. C.

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First Vice-President .....Thomas R. Kimbal, Omaha, Neb.
Second Vice-President .....Frank C. Baldwin, Washington, D. C.
Secretary .....D. Knickerbacker Boyd, Philadelphia, Pa.
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Thomas J. D. Fuller, 806 Seventeenth St., Washington, D. C.
Robert Stead, 906 F Street, Washington, D. C.

SAN FRANCISCO CHAPTER, A. I. A.

Owing to the lack of a quorum, no meeting of the San Francisco Chapter of the American Institute of Architects was held on July 16, 1914.

SOUTHERN CALIFORNIA CHAPTER, A. I. A.

No minutes received from Southern California Chapter this month.

WASHINGTON STATE CHAPTER, A. I. A.

As the Washington State Chapter, A. I. A., does not hold meetings during the months of July, August and September, there will be no minutes of meetings published until October, when they will be resumed.

OREGON CHAPTER, A. I. A.

Meeting held at the Commercial Club June 18, 1914, called to order by President Whitehouse.

Wm. G. Holford appointed Secretary pro tem in absence of Secretary Lawrence.

Present: Messrs. Whitehouse, Lazarus, Tegen, Williams, Smith, Hogue, Allyn, Fouilhoux, Doyle, Mayer, Naramore and Holford.

Mr. Naramore moved and Mr. Mayer seconded that the minutes of the last meeting be accepted as printed. Motion carried.

REPORTS OF COMMITTEES.

Owing to the limited time, there were no reports from regular committees with the exception of that of Building Laws. Mr. Fouilhoux as chairman pointed out the necessity of a thorough investigation of the proposed Housing Code. After the discussion, Mr. Doyle moved that the Secretary send notices to all members of the Chapter asking them to send to Chairman Fouilhoux suggested modifications of the Housing Code on or before June 27th, as a report would have to be sent to the Council by the Chapter. The motion was duly seconded by Mr. Smith and carried.

Mr. Doyle moved that the Building Laws Committee call a special meeting for July 1st to consider this Housing Code, and that all members of the Chapter interested be invited to attend the committee meeting and that the Committee on Building Laws be empowered to act for the Chapter with approval of the Executive Committee. Motion seconded by Mr. Naramore and duly carried.

SPECIAL COMMITTEES.

Mr. Lazarus, chairman Sub-Committee on Contracts and Specifications, reported and suggested that all members be notified where the Standard Documents of the Institute can be found, requesting them to submit to the committee any changes or suggestions of same.

READING OF COMMUNICATIONS.

Owing to the lack of time, the month's communications were referred to the Executive Committee for proper action.

Mr. Naramore moved that the meeting adjourn. Motion duly seconded by Mr. Doyle and carried.

ELLIS F. LAWRENCE,
Secretary.

Albert Pissis Is a Victim of Pneumonia

Death took one of San Francisco's best-known architects when Albert Pissis succumbed to an attack of pneumonia at the St. Francis Hotel. Pissis died after a comparatively short illness.

A history of San Francisco architecture would not be complete without mention of the name of Albert Pissis. Before the fire, as well as since, he had been actively engaged in his profession, designing some of the city's greatest edifices. These include the London Paris National Bank, Hibernia Bank, the Emporium, the White House, Mechanics' Institute building and the Jewish Synagogue, besides several crematories and mausoleums in local cemeteries. He also planned the Catholic Church at San Mateo and several buildings in Los Angeles, including the Callaghan, Alliance, Loft, Haas and Wilcox.

Pissis was one of the five architects selected as members of an advisory committee of the architecture procedure for the 1915 Exposition. He was an Associate of the American Institute of Architects and a past president of the San Francisco chapter. He belonged to the Pacific Union and Bohemian clubs and other organizations.

Born in Guaymas, Mexico, Pissis was brought to San Francisco by his parents when but a youth, receiving most of his education here. He studied architecture in the Ecole des Beaux Arts in Paris, and traveled extensively through Europe, studying his profession. He entered into active practice upon his return to San Francisco.

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Architect-Banker Called by Death

David B. Farquharson, for forty years president of the California Savings and Loan Society, and also one of San Francisco's best known architects, died recently at the home of his son, Charles D. Farquharson, 2205 Sacramento street. A complication of diseases incident to old age was the cause of death. He was 87 years old.

Born in Scotland, Farquharson came to this country as a young man and passed most of his life in San Francisco. He soon became proficient in architecture and established himself in that profession here soon after his arrival. He was a charter member of the Pacific Coast Archaeological Society, founded in 1862, which subsequently became the Pacific Coast Association of Architects, and later the San Francisco Chapter of the American Institute of Architects, and of which he was an honorary member.

Some of the largest and most beautiful of San Francisco's bank and office buildings were born in Farquharson's brain. The old Bank of California was one of his notable achievements, being considered a monument of refinement in design and detail. It was unfortunately destroyed in the fire of 1906. His career as a banker also made him prominent in business circles.

Progress at the P.-P. I. E.

(Continued from page 52)

The outside walls of the central group of eight palaces forms an almost continuous facade. Throughout its entire circuit of the group its surface is unbroken save by the huge and highly decorated portals and entrances to the exhibit palaces, by the openings of the courts upon San Francisco harbor and by the two minor courts that open out upon the South Gardens.

Throughout the circuit of the vast encircling facade there is regularity in the architecture. In the walls of the stately palaces are green latticed windows with a wealth of gold and terra cotta showing behind the network of the green. The windows recall those of the great monasteries. Indeed several of these are replicas of portals in famous Spanish monasteries. Repeated groups of statuary, lofty Corinthian and Ionic columns, stately portals and a profusion of ornamental trees, some of them fifty feet in height, and shrubs contrast with the prevailing ivory tint, the walls lending life and beauty to the ensemble.

And in this great shell, which is to house the exhibits of the world, will the world's progress be worthily exemplified. Italy, which has appropriated $400,000 toward the Exposition, was the last of the foreign nations to dedicate its site. Signor Ernesto Nathan, former mayor of Rome, who visited San Francisco as commissioner from Italy to the Exposition, promised that his country would make the finest display ever presented by Italy at a foreign exposition. "Argentina will make a representation unsurpassed among the nations," said His Excellency Romulo S. Naon, when the Argentine dedicated its site last fall. That Argentina's exhibit will be extensive may be inferred from the fact that the great South American republic has appropriated $1,300,000 gold for its participation. The exhibit will include a vast live stock display in the live stock pavilions and illustrative displays of Argentina's schools, churches, theatres and educational methods. Canada will make a huge exhibit of the agricultural resources of the Dominion. The great Canadian pavilion, to cost $300,000, is structurally completed and the finishing touches will be put on next fall. Canada appropriated $600,000. France will expend $500,000. The figures run high. Thomas G. Stallsmith, one of the Exposition commissioners to the Orient, has given out a list of the appropriations of the Oriental countries: China, $1,000,000; Philippine Islands, $600,000; Japan, $600,000; Australia, $400,000; Siam, $250,000; Dutch East India, $250,000; New Zealand, $200,000; Cochin China, $150,000.

Although Germany will not participate officially, more than fourteen hundred of the leading manufactures of Germany will be represented; $125,000 is devoted to an exhibit of a single manufacturing industry, that of Potash, and the construction of the potash building has begun. Six hundred of the leading industries of Great Britain will combine in a collective display, despite the final refusal of the government to participate. Here is a list of the participating nations: Argentine Republic, Australia, Austria, Bolivia, Brazil, Canada, China, Costa Rica, Cuba, Denmark, Dominican Republic, Ecuador, France, Guatemala, Haiti, Holland, Chile, Honduras, Italy, Japan, Siberia, Mexico, New Zealand, Nicaragua, Norway, Panama, Persia, Peru, Portugal, Salvador, Spain, Sweden, Turkey, Uruguay and Venezuela.

More than 230 great international congresses and conventions, at which more than 500,000 accredited delegates will assemble, have voted to meet in San Francisco in 1915. It is expected that fully 500 conventions will have decided to meet in San Francisco by the time the Exposition opens. The delegates to these assemblages will come from every part of the globe and leaders in art, science, industry and in the teaching of ethical propaganda, will present in standardized form the results of the world's best effort in recent years. A resume of the conventions that have voted to meet in San Francisco discloses the following activities: Agricultural societies, 25; business, 20; educational, 21; fraternal, 37; genealogical, 7; Greek letter fraternities, 23; governmental and civic, 16; historical and literary, 5; industrial, 15; labor, 9; professional, 15; religious, 9; scientific, 20; social service, 8.

One of the most interesting conventions will be the International Engineering Congress. The engineers of the Pacific Coast have already raised a large sum to finance the congress and the five great national engineering bodies comprising the congress have also guaranteed to aid in defraying the expenses of the meeting. An exhaustive discussion will be given to the construction of the Panama Canal, among the subjects, and the proceedings of the congress will be published in standardized form. Colonel George W. Goethals has been tendered and has accepted the chairmanship of the congress.

Among other important assemblages there will be an International Council of Nurses, to meet in San Francisco during the latter yart of May next year. Five thousand nurses from fifteen nations are expected to participate in this gathering; delegates from more than twenty-five nations interested in grape culture will attend the International Congress of Viticulture, to be held in June, 1915; the leading electrical experts of the world will meet in the International Electrical Congress in September, while the World's Petroleum Congress, the first ever held, will meet in the fall of next year;

thirty-four American and three European organizations concerned with the marketing, production and distribution of petroleum will take part in this congress. The International Potato Congress, to deal with the production, distribution and marketing of the potato, will be one of the most unique conventions, as also will be that of the National Topnotch Farmers' Club, an organization of corn growers, with headquarters in Springfield, Ill.; the club consists of corn growers who have established a record in producing at least one hundred bushels of corn to the acre; the president of the organization is Mr. W. L. Dunson of Alexander City, Ala., who earned the presidency by growing *232.7* bushels of corn on an acre of ground. When the record is superceded, the grower raising the most corn on an acre will automatically become president.

Plans are under way to assist the delegates to conventions in gathering information in the specialized lines in which they are most interested. The American Breeders' Association, for example, has been invited to send a committee of its members to San Francisco in advance of the convention to list everything of greatest value at the Exposition dealing with the subject of cattle breeding. Pamphlets telling how and where to find these exhibits will be mailed to the members before they start for San Francisco. Indeed, in all conventions the exhibits will comprise useful auxiliaries to the reports and addresses upon various subjects.

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History of the Largest Varnish Manufacturers

Among the lesser known commodities, but which, at the same time, play a conspicuous part in our every day life, varnish is a noted example.

While the beautifying effects of varnish are seen on every hand, and the lack of it would detract greatly from the aesthetic harmony of our surroundings, we are apt to accept varnished things as a matter of course, giving but small thought of varnish as a cause or as a commodity.

Among the greatest producers of varnish in the country is the house of Berry Brothers, located at Detroit, Mich., and which is said to be the largest manufacturing industry in the world.

This firm arose from the most humble origin, the business being established in 1858 by Joseph H. and Thomas Berry, on an extremely modest scale. The infant industry speedily grew into lusty manhood, however, and has kept on growing until the present mammoth factory is one of the show places of Detroit.

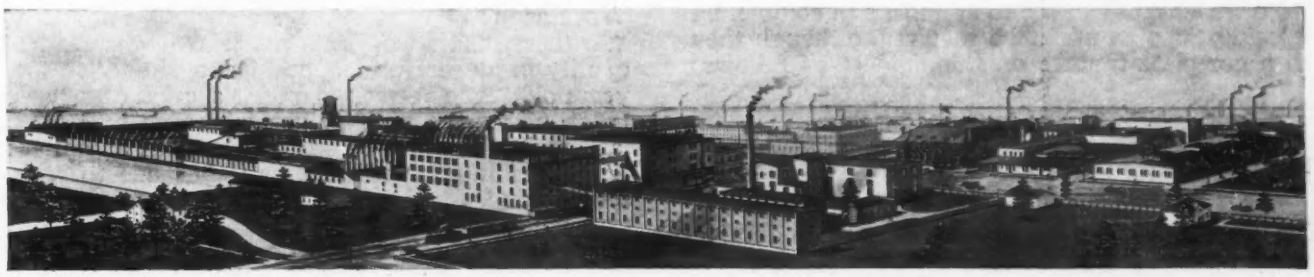
The fame of Berry Brothers has been very largely enhanced by their introduction of two great specialties that have attained world-wide popularity, viz.: "Luxeberry Wood Finish" or Hard Oil Finish, as it was originally called, this name being afterwards changed because the name was imitated so widely, and "Liquid Granite," a finish of remarkable toughness and elasticity, for floors and interior woodwork where the exposure is excessive.

The establishment of Berry Brothers consists of factories and offices at Detroit, San Francisco and Walkerville, Ont., the latter to take care of their large Canadian trade, and branch houses at New York, Boston, Philadelphia, Baltimore, Chicago, Cincinnati and St. Louis. It also includes warehouses at Kansas City, Denver, Chattanooga, Dallas, Toronto, Winnipeg and Vancouver, and foreign branches at London, Paris, Berlin, Milan, Brussels, Stockholm, Christiania, Melbourne, Capetown and Buenos Ayres.

In 1858 Berry Brothers made their first Varnish in this old copper melting kettle; capacity, 30 gallons; today they use three batteries with a total of 45 kettles; capacity, 11,500 gallons at a single batch. Their storage capacity today is one and one-half million gallons.

The combined storage capacity at the Detroit and Walkerville works is one and a half million gallons of varnish, and the market for the product is the whole world.

Unscathed by panic or financial disaster, the house of Berry Brothers has weathered every storm and is recognized as one of the soundest and most reliable commercial houses in the country.



Berry Brothers' (Detroit, Mich.) Factory, which is the Largest Manufacturing Varnish Plant in the World.

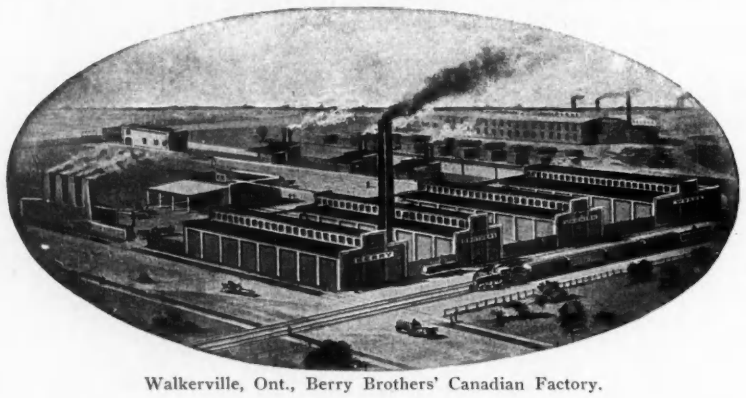
The death of Mr. Joseph H. Berry, one of the founders of the house, some years ago, while a sad blow to his many friends and employes, had no effect whatever on the standing or conduct of the business, except such official changes as became necessary upon the demise of Mr. Berry, who was chairman of the company.

All the old traditions on which the house of Berry Brothers was built are preserved and maintained by the company. The business policies are also earnestly sup-

plemented by the various heads of departments, most of whom have been connected with the house for long periods of years, and whose interest in the successful conduct of the business is based upon personal regard for the house as much as for interested motives, and with such an "esprit de corps" no house can do otherwise than prosper.

The general managership of this concern is in the hands of J. S. Stevenson, who has been connected with the house for upwards of a quarter of a century, and knows varnish in all its phases as a child knows its alphabet. Mr. Stevenson is withal a chemist of wide attainments, and has besides the executive ability necessary to maintain the general equilibrium of the institution.

The Pacific Coast headquarters of Berry Brothers are in San Francisco, while the factory is located at Alameda. The Western factory has now been in operation since January first of this year, and it has shown a steady and healthful growth. This takes care of all shipments to Washington, Oregon, Idaho, Nevada and California; also export trade in the Hawaiian Islands, Western Mexico, the Philippines, Alaska and the



Walkerville, Ont., Berry Brothers' Canadian Factory.

Orient. They extensively import gums and oils from the latter place.

Large warehouse stocks are maintained in the principal coast cities, including Seattle, Portland and Los Angeles, from which the interior points are supplied, thereby insuring efficient service.

The Western Division is equipped with a corps of experienced varnish men, several of them being of long standing with the company, and they are ready at all times to offer such assistance to architects in completing their specifications as might be required, although they publish a complete treatise on this subject as follows:

Architect's Varnish Specifications

As submitted by Berry Brothers, Detroit, Mich.

Liquid Granite

The Varnish for Floors—This is the most durable floor varnish made, combining the three principal requisites of a perfect floor finish—elasticity, durability and appearance. It has stood the actual test of severe and constant service for over thirty years and is recognized by master painters as being the best article of its kind on the market. As a floor varnish it has never been equalled and there is more Liquid Granite in use today than any other floor varnish.

Specify as follows: Two coats of Liquid Granite applied over one coat of Berry Brothers' Paste Filler on open-grained woods; on close-grained woods omit the filler. Eliminate the use of shellac and liquid wood fillers on all floor work.

Luxeberry Wood Finish White

For General Interior Trim—This is an interior varnish of the highest quality and should be used on all specifications where the finest gloss or rubbed finish is required. It is very pale in color, is full-bodied, flows perfectly, and dries with a full, rich and durable finish. It is strongly recommended for all kinds of interior woodwork, for the finest offices and public buildings or wherever the highest class of work is desired. It is made from the best gums and especially treated oils. It possesses great durability, dries dust-free in a few hours and under good weather conditions can be rubbed in about three days. It is to be rubbed with pumice and water for a flat finish, or with pumice and oil when a soft velvety finish is desired. It will also take and retain a beautiful polish.

Luxeberry Wood Finish Light

This material is of the same high quality as Luxe-Wood Finish "White," only that it is not so pale in color, but it can be used on the majority of woods without discoloring them in the least.

Note—Luxeberry Wood Finish is the registered trade mark name now used to designate the finish long and favorably known as Berry Brothers' Hard Oil Finish. The name was changed to Luxeberry Wood Finish to protect the public against the many cheap imitations on the market sold as so-called hard oil finishes.

Specify as follows: One coat of Berry Brothers' Stain, one coat of Berry Brothers' Paste Filler, one coat of Berry Brothers' S. D. C. Shellac and three coats of Luxeberry Wood Finish. On close-grained woods omit the filler.

Elastic Interior Finish

For Interior Trim Subjected to Severe Usage—Intended for interior work subjected to severe exposure or usage. It possesses great elasticity and durability, and will resist the action of hot water, soap, etc., to a greater degree than any other varnish.

Specify as follows: On open-grained woods, one coat of Berry Brothers' Stain, one coat of Berry Brothers' Paste Wood Filler, one coat of Berry Brothers' S. D. C. Shellac, and two coats of Elastic Interior. On close-grained woods omit the filler.

Luxeberry Spar Varnish

For Front Doors, Store Fronts and Such Exterior Work as is Subjected to Severe Exposure and Changing Weather Conditions—This material is the standard of quality in a spar varnish, and has a reputation fifty-five years old. The varnish is made especially for use on all types of marine architecture wherever a durable and lasting finish is desired. It can be used as both an exterior and interior varnish, as it is made to withstand severe wind, weather and water exposure and does not turn white.

Specify as follows: Two coats of Luxeberry Spar Varnish, over one coat of Berry Brothers' Paste Wood Filler on open-grained woods. Omit the filler on close-grained woods.

Lacklustre

For General Interior Work where Economy in Labor is a Consideration—This ideal one-coat finish accomplishes with one coat what heretofore necessitated a coat of stain and a coat of wax. The method of application is easy—apply with a rag and wipe off with a clean piece of cheesecloth, producing a soft and almost lustreless finish, as it contains no wax and has none of the disadvantages of a waxed finish. It will not collect

dust, neither will it spot white, and varnish can be applied over it without the necessity of preparing the surface as in the case of wax.

Manufactured in the following colors: Green Flemish, Brown Flemish, Black Flemish, Silver Gray, Mission, Light Weathered, Dark Weathered, Filipino, Golden, Antwerp, Forest Green, Bog. Special shades furnished upon request.

Dulgloss

For Interior Trim Work where a Flat Varnish is Desirable—This material produces in one coat an imitation rubbed effect over a shellaced varnished surface. It is light in color, flows freely under the brush, dries dust-free in about an hour and hardens in twelve hours with a soft velvety finish which is so much in demand.

Specify as follows: For imitation waxed effect—one coat of Berry Brothers' Stain, one coat of Berry Brothers' Paste Wood Filler, one coat of Berry Brothers' S. D. C. Shellac and one coat of Dulgloss.

For imitation rubbed effect—one coat of Berry Brothers' Stain, one coat of Berry Brothers' Paste Wood Filler, one coat of Berry Brothers' S. D. C. Shellac, two coats of Luxeberry Wood Finish and one coat of Dulgloss.

On close-grained woods omit the Filler.

Luxeberry White Enamel

For Bath Rooms and Bed Rooms—This enamel is especially designed for the practical finisher and decorator. It possesses full body, flows very freely, and dries without showing brush marks. It will rub perfectly in three to four days, and can be polished on the fifth day to a piano finish. It can be used on the finest interior or furniture work. It is pure white in color and stays white.

Note—We can also furnish ivory white and pearl white tints when desired. If an egg-shell gloss or imitation rubbed effect is desired, we will furnish it at the same price as the high gloss goods.

Luxeberry White Enamel Primer

Especially designed for use under Luxeberry White Enamel. It is much better than a zinc coat, holds up the enamel coat perfectly, and never fails to produce the desired result.

Specify as follows: Two coats of Luxeberry White Enamel applied over two coats of Luxeberry White Enamel Primer.

Shingletint

For Half-Timbered Work or Shingle Stain Specify —"Shingletint" represents the highest results yet attained in the manufacture of shingle stains. It possesses great penetrative and preservative qualities, being a scientific combination of colors finely ground in pure linseed oil, creosote oil and the necessary drying agents. It prolongs the life of the shingles by retarding decay, at the same time imparting a very artistic finish.

Berry Brothers' Cement Coating

The adoption and increasing use of concrete as a building material has created a demand for a coating for exposed concrete surfaces.

To meet it we have perfected a finishing material especially devised and adapted for this purpose which is known as Berry Brothers' Cement Coating.

It is a sanitary preservative coating for all cement and concrete surfaces, excluding dirt and preventing chipping and the formation of dust caused by friction, makes a hard glossy finish and can be rubbed if desired.

It is suitable for both interior and exterior work, and is not affected by water.

It is especially adapted for floors of garages, factories, hospitals, schools, etc., where the maintainance of sanitary conditions is of unusual importance.

We make Cement Coating in four colors and transparent, and solicit inquiries from anyone interested in a handsome, healthful and economical finish on cement and concrete surfaces.

Berry Brothers' Floor Wax

For interior Wax Finish—A new combination of hard waxes, especially adapted for finishing purposes. Easy to apply. Makes a hard finish. Will not soften after applying.

Directions for Use—Open-grained woods like Oak, Chestnut, Ash, etc., should be first filled with Berry Brothers' Paste Filler.

Allow the Filler at least 24 hours to harden and then apply a coat of floor wax with a rag. Let it remain a few minutes, then use a long-handled weighted floor brush to bring up the finish.

It is well to rub the floor with the grain and then across the grain to get the best results.

A final rubbing with a soft dry cloth improves the finish.

In waxing old worn floors that have been finished with varnish or shellac, clean the surface well with turpentine and then use the wax as directed above, omitting the filler coat unless the floor is badly worn in places.

Close-grained woods like Maple, Pine, etc., do not need filling.

In finishing furniture or interior trim with wax, the method is the same as for floors, except that the long-handled brush is not necessary. After applying the wax, a small stiff brush can be used to polish with, and a soft cloth to finish up. A second coat of wax can be given if more gloss is wanted.

Facts Worth Remembering

All opened-grained woods such as Oak, Ash, Chestnut, etc., should be filled with Berry Brothers' Paste Filler to match the color of the wood, or to match the color of the stain if the wood is stained.

Close-grained woods such as Pine, Maple, Gumwood, etc., need no filling, but a first coat of Berry Brothers' S. D. C. Shellac is desirable and is especially so on Pine. The shellac coat should be applied directly to the wood and then finished in the natural color and should follow the staining when the wood is stained.

The use of liquid fillers is not desirable for high grade work and should never be used on floors.

Condensed Facts on Covering Capacities

A gallon of Varnish will cover approximately 600 square feet, one coat.

A gallon of Shellac will cover from 500 to 600 square feet.

A gallon of Water Stain covers about 500 square feet on open-grained woods, and on close-grained hard woods, 50 square feet more. On soft woods a gallon of Water Stain will cover from 400 to 500 square feet.

A gallon of Spirit Stain will cover from 300 to 400 square feet.

A gallon of Oil Stain will cover about 550 square feet.

From 6 to 8 pounds of Paste Filler made up to volume of one gallon will cover approximately 300 square feet of surface.

A gallon of Shingletint covers about 160 feet, one coat if brushed on; 1½ gallons cover the same surface, two coats. From 2¼ to 2½ gallons of Shingletint will dip 1,000 shingles and another gallon is enough for a brush coat in addition after the shingles are laid.

The above estimates will vary according to the method of application and the nature of the wood. The covering capacity is naturally greater on close-grained hard woods, than on soft woods, as open-grained or soft woods will absorb a greater amount of stain.

For any further details and suggestions on wood finishing, please see our book, "Natural Woods and How to Finish Them."

Special Note

For the benefit of all inquirers, we maintain a technical correspondence department and also a perfectly equipped finishing room, presided over by an expert wood finisher, and a corps of competent assistants.

If you want to see samples of wood finished up in any particular way,

If any points should come up not fully touched upon that you do not fully understand,

If you want advice as to the use of varnish, or on the treatment of woods to get the best results in the way of a finish,

If you are in doubt on any matter concerning varnish or its uses, or on the subject of wood finishing in any of its phases,

ASK BERRY BROTHERS

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Asbestos "Century" Shingles

The Asbestos "Century" Shingle, manufactured by Keasbey & Mattison Co., Ambler, Pa., is composed of approximately 15 per cent of carefully selected Asbestos fibre and 85 per cent of Portland or hydraulic cement. It is made by a process which builds the material up, layer on layer, similar to the making of a book, yet each layer is part and parcel of the next layer although, structurally, the sheet is of distinctly laminal type, possessing all of the strength, toughness and elasticity

Roofed with Asbestos "Century" Shingles. Bungalow owned by W. E. Crawford, Cincinnati, Ohio.

which such a process of creation must necessarily produce, precisely as nature has formed the most enduring of her works. Every material of mass-concentrated structure must have its weak and vulnerable points, parts that are weaker than others, and it is only the structure of superimposed layers where one layer strengthens the next (for their weak places cannot all occur at the same point in each layer) that can hope to produce a material of maximum strength and toughness. Of course the pressure of nearly seven hundred tons to the square foot, which the sheet receives after it is built to its required thickness, knits it finally into the one uniform sheet, called the Asbestos "Century" Shingle, which is so exceedingly meritorious for roofing purposes.

The Asbestos "Century" Shingle is absolutely fireproof, waterproof and indestructible by all natural climatic conditions. The reports of the United States

Roofed with Asbestos "Century" Shingles. Residence on Bitter Root Stock Ranch, owned by Mrs. Marcus Daly, Hamilton, Mont.

Government indicate that hydraulic cement continues to crystallize for a period covering several decades, during which time it is constantly becoming stronger and harder. The Asbestos "Century" Shingles may be likened to any other concrete construction, the Asbestos fibre being substituted, in the case of the shingle, for the reinforcing which is ordinarily used in other forms of cement structures. The Asbestos fibre is fireproof and, being a mineral substance, lends itself readily to the natural crystallization of the cement which occurs around and about the interlacing fibres, resulting in a material which has proven, through an experience of many years of service in this country and in Europe, to be impervious to the ordinary action of the elements and is practically everlasting and indestructible.

The Asbestos "Century" Shingle is not difficult to apply, any mechanic having ordinary mechanical skill being fully qualified to follow the instructions supplied for his guidance with each initial shipment.

A roof on which Asbestos "Century" Shingles are to be used should be framed so that there is a rise of six inches to the foot, or the equivalent of one-quarter pitch; the rafters should be covered with reasonably well-matched sheathing boards; the sheathing boards should then be covered with slater's felt or "Keasbey & Mattison" Waterproofing Paper; and then the Asbestos "Century" Shingles applied over that in accordance with our blueprint instructions.

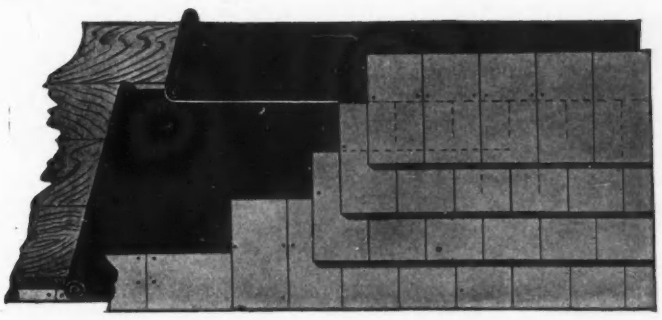
Asbestos "Century" Shingles can be cut with an ordinary hand saw, but a still better method is to use either a slater's jack and hammer or procure a sharp-pointed steel instrument, for instance a No. 6 or No. 7 slim-tapered file, score the material several times along the desired line of cleavage and then break it in a manner similar to that employed in breaking glass. You will find the material lends itself admirably to the latter treatment.

The material itself is considerably lighter in weight than natural slate or tile; in fact, a square of Asbestos "Century" Shingles, applied in the French or Diagonal Method, will weigh about the same as wooden shingles.

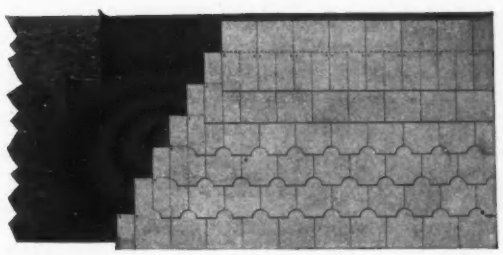
They manufacture more than threescore standard sizes and shapes of shingles, in three standard colors, and will willingly furnish estimates upon receipt of

blueprints of areas to be covered. They have quite a large variety of shingle which are cut to special shapes for use as trimmers or for other decorative purposes. The following list describes the five shingle shapes and sizes in most general use, according to "American" method:

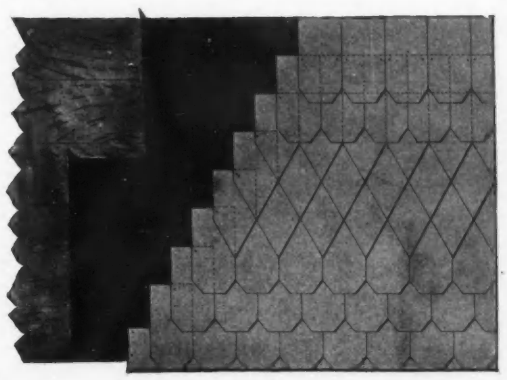
Architect's specifications for the application of Asbestos "Century" Shingles or Asbestos Roofing Slates to be applied after the "American" method, should read exactly the same as for natural except that a 2″ head-lap should be specified instead of the usual head-lap employed for natural slate, except certain shapes which specifically call for a 3″ or larger head-lap.



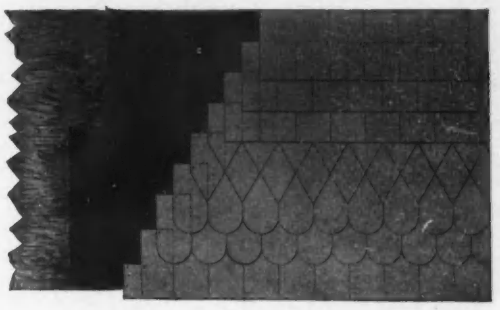
This is the usual square butt shingle (No. 16) commonly employed in laying either natural slates or Asbestos "Century" Shingles by the "American" method.



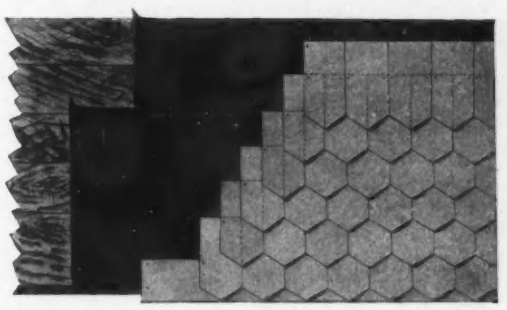
Nos. 72, 77 and 82 (priced on page 58 of the Asbestos "Century" Shingle Catalog), employed as a band course to break the straight and even lines when laid according to the "American" method. This style or shaped shingle is frequently used for siding, especially in the gables, etc.



This illustration shows Nos. 49, 54, 59 (priced on page 61 of the Asbestos "Century" Shingle Catalog) and 53, 58 and 63 (priced on page 56 of the Asbestos "Century" Shingle Catalog), employed as band courses to break the straight and even lines when laying any of the straight "butt" shingles according to the "American" method; also quite frequently employed for siding and for gables of buildings as well as porches, etc. Their use is unlimited.



This illustrates the effect produced by Nos. 68, 73 and 78 (priced on page 57 of the Asbestos "Century" Shingle Catalog), when laid according to the "American" method, employing Nos. 53, 58 and 63 (priced on page 56 of Asbestos "Century" Shingle Catalog) as a band to break the even appearance of Nos. 68, 73 and 78.



When Nos. 70, 75 and 80 are laid according to the "American" method with a two-inch head-lap over the head of the second course below we have a true hexagonal effect. This style or shaped shingle is applied in many sections for siding as well as roofing and gives a very pleasing "honey-comb" appearance.

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Digest of Business Conditions.

FAVORABLE.

1. **Crop Outlook.**—Largest winter wheat crop on record virtually harvested. Other growing crops with ideal weather conditions making splendid progress. Early damage to cotton crop being rapidly recovered.

2. Indications of willingness of **Administration to hear what business has to say,** in other words to recognize the business interests of the country as a factor to be heard on legislation affecting their interests.

3. **Politics.**—Prospect of Republican majority being returned in House of Representatives through November election, and a rest to business from radical legislation for awhile.

4. **Labor conditions** improving through demand to harvest bumper crops. The fact that conditions of the past six months have been survived without reduction in wages a hopeful sign.

5. **Gold.—Outflow of gold stopped;** $80,000,000 shipped since January 1st has not been felt in monetary circles and will return, as Europe must buy heavily of our wheat and cotton.

6. **Surplus Funds.**—Not since 1908 have New York banks held such large deposits for Western account.

7. **Easy money market** in spite of heavy Claflin and other failures.

8. **Adverse news taken with composure,** and evidences of eagerness to respond to good news.

9. **Liquidated Condition of Business.**—Never was there less speculative excess or smaller stocks; prices low.

10. **Rapid decline in idle cars** imminent to move crops.

11. **Mexican situation improving.**

12. **Strong position of foreign banks.**

13. **Purchases of merchandise increasing,** result of actual urgent needs that can no longer be held up, especially in iron and steel trade, and shown by the equilibrium now on unfilled order books.

14. **Sentiment improving,** indications that June marked climax of depression, and that from now on confidence and business will slowly improve.

15. **Improvement in price and demand for copper.**

UNFAVORABLE.

1. Determination of Administration to push new business regulation laws in the face of universal protests of the business interests of the country, accompanied with the effort to make the people generally believe that conditions are good and that they have not been affected by recent radical legislation. An effort to array the Administration and the wage earners against so-called selfish business interests.

2. **Heavy falling off in exports and heavy increase in imports** continues, with growing adverse international balance.

3. **High cost of living,** and cost of extravagance and high living.

4. **Railroad earnings** show increased shrinkage; some relief must come in increased revenues. The horse to pull our business cart exhausted through lack of nourishment.

5. **Increased Failures.**—The credit of the dry goods trade curtailed by Claflin failure and fears that far-reaching effects may yet have to be reckoned with.

6. **Tariff.**—Effect of tariff reduction with our manufacturers being felt and to continue for a long while, and will become serious should business abroad continue to fall off.—The Steel and Metal Digest.

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Professional

"Architect, 31, married, eleven years practical experience in architects' offices, mostly New York City, now practicing in South, desires to enter partnership relations with live architect in Mountain or Coast states. Address XXX, Pacific Coast Architect."

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Trade Notes

Architect E. B. Scott has moved from 1207 to 712 Humboldt Bank building, San Francisco, Cal.

Architect James Peddle, Pasadena, Cal., has moved from the St. Louis building to 521 North Fair Oaks avenue.

Wm. Templeton Johnson, architect, San Diego, Cal., is in the mountains of north California to spend the summer.

C. H. Russell Co., architects, have moved from the Union League building to 1112-5 Story building, Los Angeles, Cal.

Architect John Reid, Jr., has moved from the Chronicle building to room 1300 First National Bank building, San Francisco.

Architect E. P. Antonovich, 422 Monadnock building, San Francisco, has been in San Diego on business this month for about three weeks.

The Architectural firm of Henry Hall Johnson & Co., has opened offices at Great Falls, Mont., still retaining their Seattle place of business.

The Victoria (B. C.) Builders Exchange and Victoria Chapter (B. C.) Society of Architects will make a joint exhibit at the Dominion Fair to be held in September.

Goodrich & Goodrich, architects, formerly on the third floor of the Abington building, have moved to a larger suite of rooms at 227 and 228, the same building, Portland, Ore.

William Curlett & Son, architects, announce the removal of their offices from 1024 Title Insurance building to 518 Merchants National Bank building, 6th and Spring streets, Los Angeles.

Eugene Layman and J. Baumgartner, San Diego, Cal., are now working in the office of Bristow & Lyman, architects, completing plans and specifications for the University building at Tucson, Ariz.

Architect A. L. Haley, well known in Los Angeles, has recently opened an office at 646 Monadnock building, San Francisco, where he is making plans for a $1,000,000 factory to be built in Oakland, Cal.

Architect Wm. F. Thompson, Los Angeles, Cal., has opened an office at 819 Marsh-Strong building. Mr. Thompson has some architectural commissions in hand which will probably soon be ready to announce.

N. Clark & Sons report that they have recently closed a large contract to furnish the architectural terra cotta in the new ten-story Stockton Commercial Bank building, to be erected in Stockton, Cal. L. B. Dutton & Co. are the architects.

Architect Mark Daniels, of the firm of Daniels, Osmont & Williams, San Francisco, has been appointed Landscape Architect and Superintendent of National Parks. This is under the Department of the Interior at Washington, D. C., but Mr. Daniels will still retain his connections with the firm.

Architect Richard C. Farrell, Los Angeles, who has been associated with Architect Wm. S. Garrett under the firm name of Garrett & Farrell, has been appointed by A. H. Daum, Supervisor of Construction of the Los Angeles Board of Education, to take charge of the architectural work to be done under the latter's direction.

Architects have long been looking for a good tracing paper of sufficient strength and transparency to take the place of tracing cloth, in order to reduce their expenses. This long-felt want has been filled by The Frederick Post Co. of Chicago, and the No. 177 Velour Tracing Paper offered by this firm has been adopted by a great many leading architects all over the country. Samples or information can be obtained by writing to the Pacific Coast branch at 537 Market street, San Francisco.

The volume of business done by W. P. Fuller & Company has reached such proportions that their immense manufacturing plant is inadequate to keep pace with their sales. They are now adding a new building to their group which will relieve the congestion in their Mixed Paint Department. This building will be of reinforced concrete construction with brick facing, will be three stories high and will cover a ground area of 58½x146 feet. It will be equipped with the most modern machinery and will be a splendid addition to the plant, which is already by far the largest of its kind on the Pacific Slope.

CALIFORNIA.

San Francisco—Architects Rousseau & Rousseau, Monadnock Building, have completed plans for a five-story and basement Class C construction apartment house, to be erected on the north side of Post Street, west of Larkin, at a cost of $40,000.

San Francisco—Architect Edw. T. Foulkes, Crocker Building, has prepared plans for the construction of four one-story frame and plaster concession buildings for Mr. McConnell, which will cost in the neighborhood of $160,000.

San Francisco—Architect Lewis P. Hobart, Crocker Building, is now preparing working drawings for a large exhibit building, one story and basement, frame and plaster, which will cost $45,000, for the New Zealand Government.

San Francisco—Architects Cunningham & Politeo, First National Bank Building, are preparing plans for a two-story and basement Class A building for stores and dance hall, for Mr. Walter E. Dean, at the corner of Eddy and Jones Streets, the estimated cost of which is $75,000.

San Francisco—Architect Frederick H. Meyer, Bankers' Investment Building, has completed plans for the construction of a five-story and basement Class C apartment house, for G. A. Steffen, to be erected at the corner of Taylor and Sacramento Streets. It will be of pressed brick and terra cotta and will cost $45,000.

San Francisco—Architect Houghton Sawyer, Shreve Building, has completed plans for the construction of a seven-story and basement Class A apartment house which will cost $100,000.

San Francisco—Architect John Bauer, Sheldon Building, has prepared plans for the construction of a two-story and basement reinforced concrete hospital for the San Francisco Home for Incurables, which will cost $55,000.

San Francisco—Architect Henry C. Smith, Humboldt Bank Building, has prepared preliminary plans for a two-story and basement brick or reinforced concrete residence for Mrs. Clarence Musto at Vallejo and Divisadero Streets, which will cost $45,000.

Hillsborough—Architects Havens & Toepke, 46 Kearny Street, San Francisco, have prepared plans for a two-story and basement residence to be erected on the corner of Santa Inez and Mifford Avenues for George H. Shreve.

San Jose—Architect Louis Lenzen, 110 S. Second Street, has prepared preliminary plans for the construction of a four or five-story and basement Class A lodge hall for the Native Sons of the Golden West, on N. First Street, south of Santa Clara Avenue, which will cost $100,000.

Hanford—Architect Ernest J. Kump, Fresno, Cal., is preparing plans for the construction of a two-story and basement reinforced concrete hospital for the St. Dominican Sisters, which will cost $40,000.

Sacramento—Architect L. G. Burgren, Holbrook Building, San Francisco, is preparing plans for the construction of a nine-story and basement Class A hotel, to be of steel frame and reinforced concrete, and to cost $225,000.

Sacramento—The Sacramento County Board of Supervisors has selected Architect R. A. Herold of Sacramento, Cal., to make plans for the group of County Hospital buildings, that will cost when complete about $250,000.

The same architect is completing plans for adding five more stories to the Forum Building, which, when complete, will be the largest building in Sacramento and ten stories high.

Fresno—Architect George B. McDougall, Sacramento, Cal., is preparing plans for the construction of the new Fresno State Normal School, which is to be of brick and steel, to cost $265,000.

Woodland—Architect W. H. Weeks, San Francisco, Cal., is now preparing plans for the construction of a one-story and basement reinforced concrete library for the town of Woodland.

Norwalk—Architect George B. McDougall, Sacramento, Cal., is preparing preliminary plans for a two-story brick hospital group, which will cost $160,000.

Los Angeles—Architects Foss Designing Co., 100 E. Colorado Street, are preparing plans for a two-story frame and plaster residence for W. J. Bettingsen, which will cost $75,000, and to be erected on Hillcrest Avenue, in the Oak Knoll district.

Los Angeles—Architect George F. Costerisan (J. F. Kavanaugh, associate), 922 California Building, is preparing plans for a five-story and basement Class A reinforced concrete warehouse, to be erected on the northeast corner of Griffith Avenue and Thirty-first Street, for the Dixon Art Glass Co., at a cost of $60,000.

Los Angeles—Architects Morgan, Walls & Morgan, 1136 Van Nuys Building, have prepared plans for the construction of the eight-story and basement reinforced concrete office building to be erected at Sixth and Los Angeles Streets for William G. Kerckhoff at a cost of $160,000.

OREGON.

Portland—Architects Whitehouse & Fouilhoux, Wilcox Building, are preparing plans for the construction of a two-story and basement brick and stone residence for C. G. Murphy, which will cost $25,000.

Portland—Architect F. A. Naramore, Superintendent of School Properties, is preparing plans for a one-story hollow tile construction school for the city of Portland, which will cost $36,000.

Portland—Architect C. A. Duke, Failing Building, has completed plans for the construction of a three-story and basement brick apartment house for H. Meter, 341 Sixteenth Street, at a cost of $35,000.

Portland—It is stated that owing to the consolidation of the First National Bank and the Security Savings and Trust Bank a fireproof building will be erected on the southwest corner of Fifth and Stark Streets at a cost of $300,000 to $400,000.

Portland—Plans and specifications are being completed by Architects Tourtellotte & Hummel, Rothchild Building, for the proposed $45,000 hospital to be erected on Commercial and Graham Streets, of reinforced concrete and four stories high.

Eugene—Architect Hunzicker & Preusse have completed plans for the construction of a three-story brick high school to cost $110,000.

La Grande—Architects Houghtaling & Dougan, Henry Building, have been commissioned to prepare plans for the Elks' Lodge. It will cost $80,000.

North Bend—Architects George Courtney is preparing plans for the construction of a five-story and basement brick and steel hotel, which will cost $100,000.

Medford—Architect Oscar Wenderoth, Washington, D. C., has completed plans for a two-story and basement brick and stone post office for the U. S. Government, which will cost $80,000.

WASHINGTON.

Seattle—Architect George C. Mimmons, Peoples' Gas Building, Chicago, Ill., is preparing plans for a nine-story and basement reinforced concrete factory and warehouse for Sears-Roebuck Co., Chicago, at a cost of $850,000.

Seattle—Architect A. Warren Gould, American Bank Building, has prepared plans for the construction of a three-story and basement reinforced concrete steel and stone court house for the city of Seattle, which will cost $906,973.

Seattle—Architect J. Merrill Brown, Northern Bank Building, is now preparing plans for the construction of a three-story and basement reinforced concrete natatorium for Erwin Baruch, which will cost $100,000.

Seattle—Architect J. L. McCauley, New York Block, has completed plans for a ten-story and basement reinforced concrete hotel for the Rainier Heat & Power Co.

Bremerton—Architect Harlan Thomas, Arcade Building, Seattle, has been commissioned to prepare plans for the construction of a two-story concrete and steel office and bank building for the Bremer estate at about $20,000.

Seattle—Architects Saunders & Lawton, Alaska Building, have prepared plans for the construction of a three-story and basement steel and reinforced concrete lodge building, for the Seattle Masonic Temple Association, which will cost $120,000.

Tacoma—Architect Bruce G. Humes has completed plans for the construction of a three-story and basement brick and steel apartment house for E. Hutchinson, which will cost $60,000.

MISCELLANEOUS.

Vancouver, B. C.—Architects Parr, MacKenzie & Day, Vancouver Building, Vancouver, B. C., are preparing plans for the construction of a four-story and basement Class A theater for Klaw & Erlanger, New York, at a cost of $1,000,000.

Vancouver, B. C.—Architects Honeyman & Curtis, 821 Pender Street W., have completed plans for the construction of a four-story and basement hotel, to be erected on the lot adjoining the present Blackburn Hotel on Main Street, near Hastings, for the J. J. Frantz Construction Co., which will cost in the neighborhood of $75,000.

Vancouver, B. C.—Architect W. C. F. Gillam, N. W. Trust Building, has completed plans for the construction of a $125,000 school building at North Vancouver.

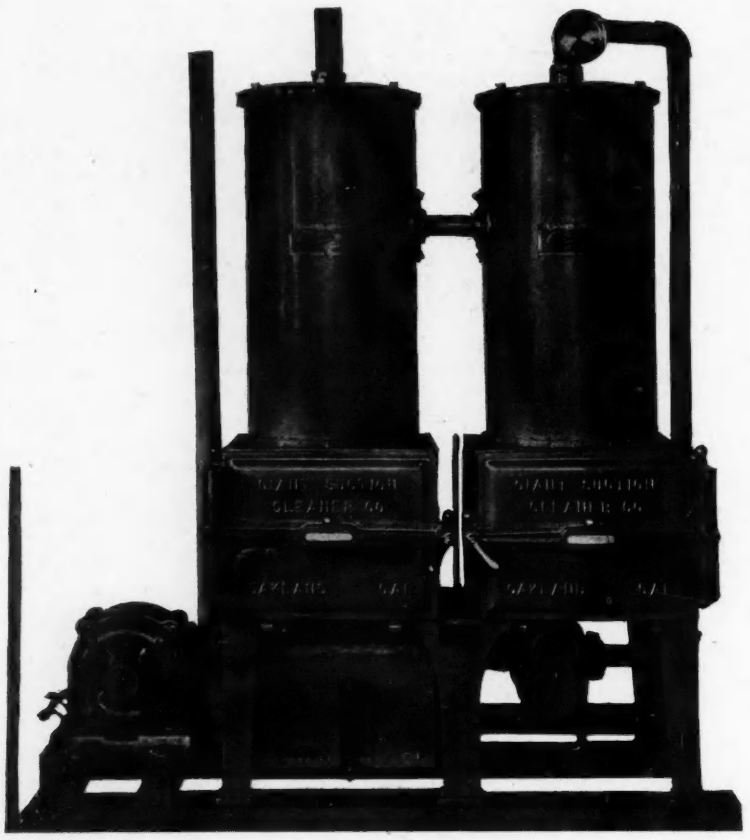
Vancouver, B. C.—Plans are being completed for a new postal station and office building, to be erected at Gove Avenue and Keefer Street, which will cost $250,000.

Victoria—Architect J. C. M. Keith is preparing plans for a city jail which will cost about $70,000.

Victoria—Plans have been prepared by Architect C. E. Watkins for a one-story building of brick, with six stores, to cost $25,000.

Tucson, Ariz.—Architect Henry Jaastad has completed plans for the new church to be erected at the corner of Ninth Avenue and Fifth Street for the Spanish-American Methodist congregation.

Phoenix, Ariz.—Plans will soon be prepared for a new church edifice for the First Presbyterian Church, which will cost $100,000.



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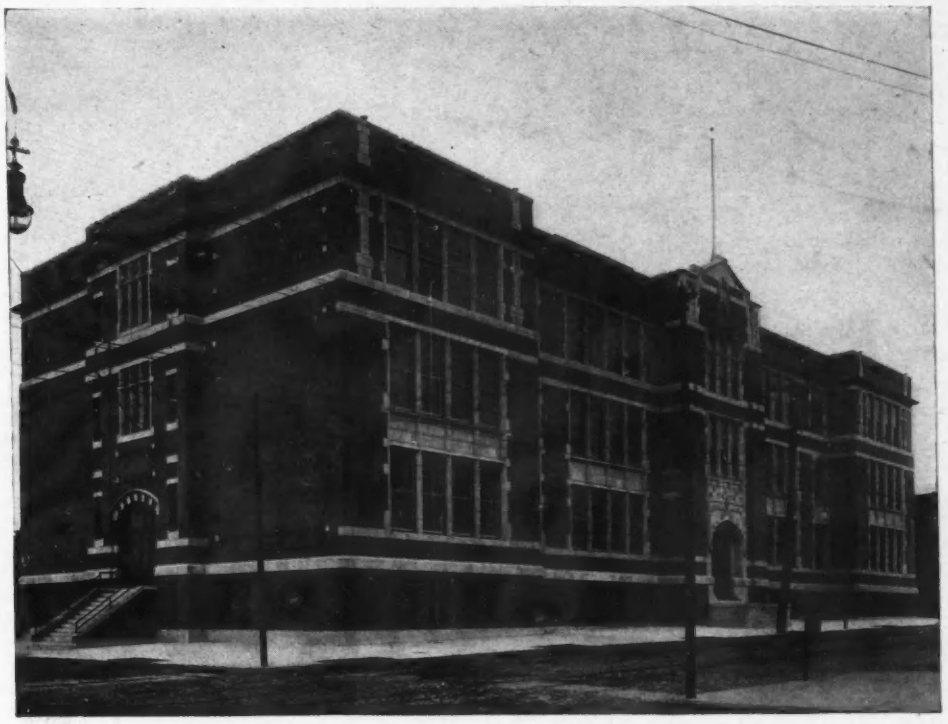

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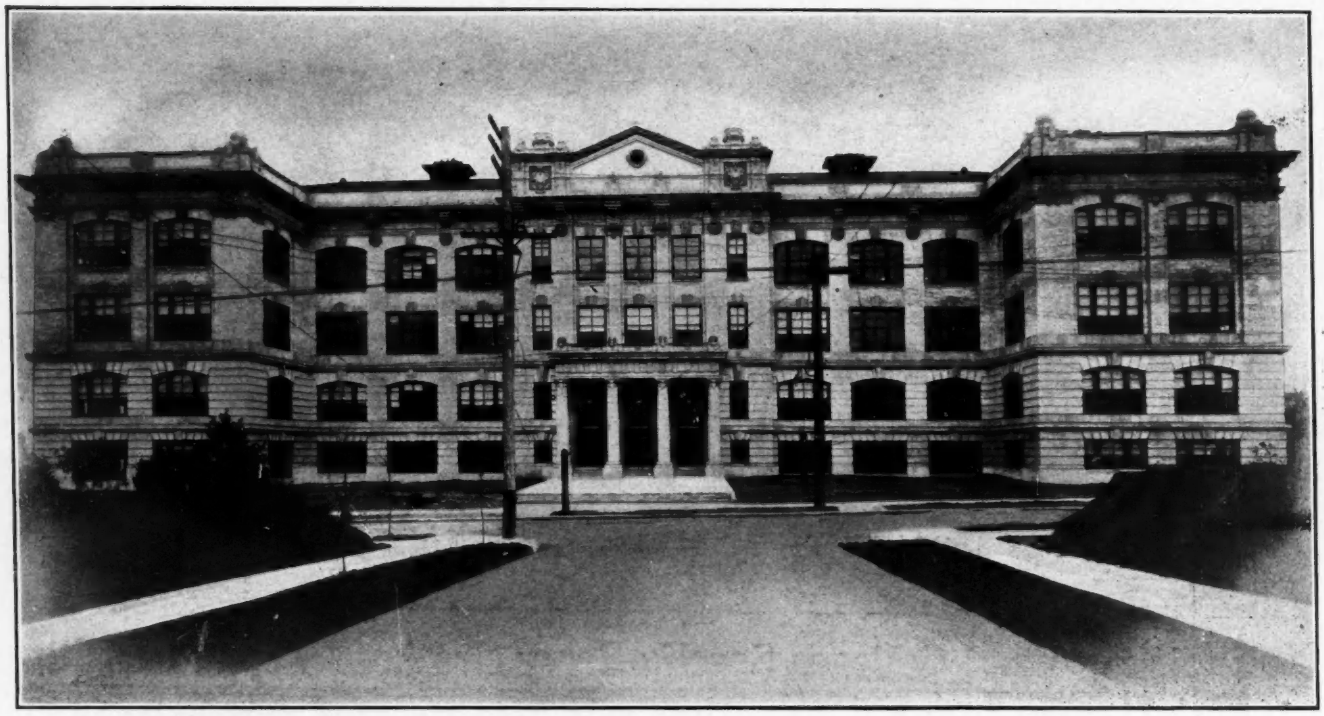

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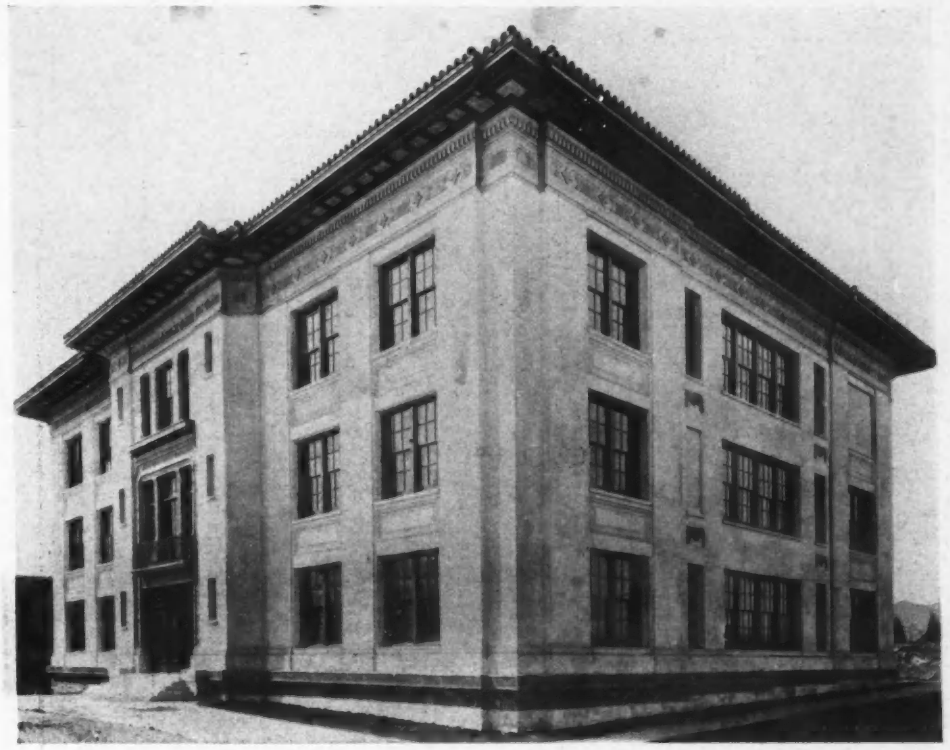

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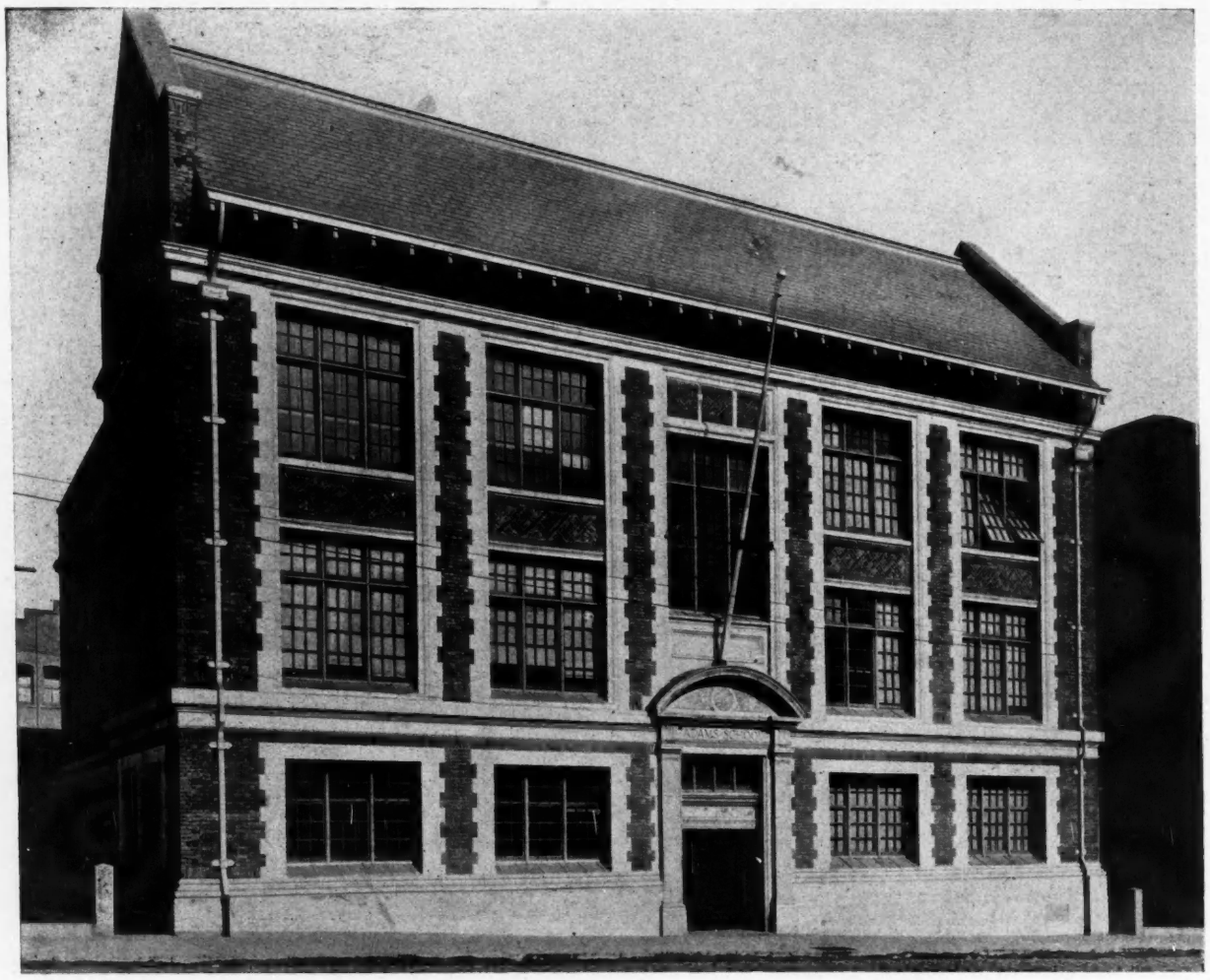

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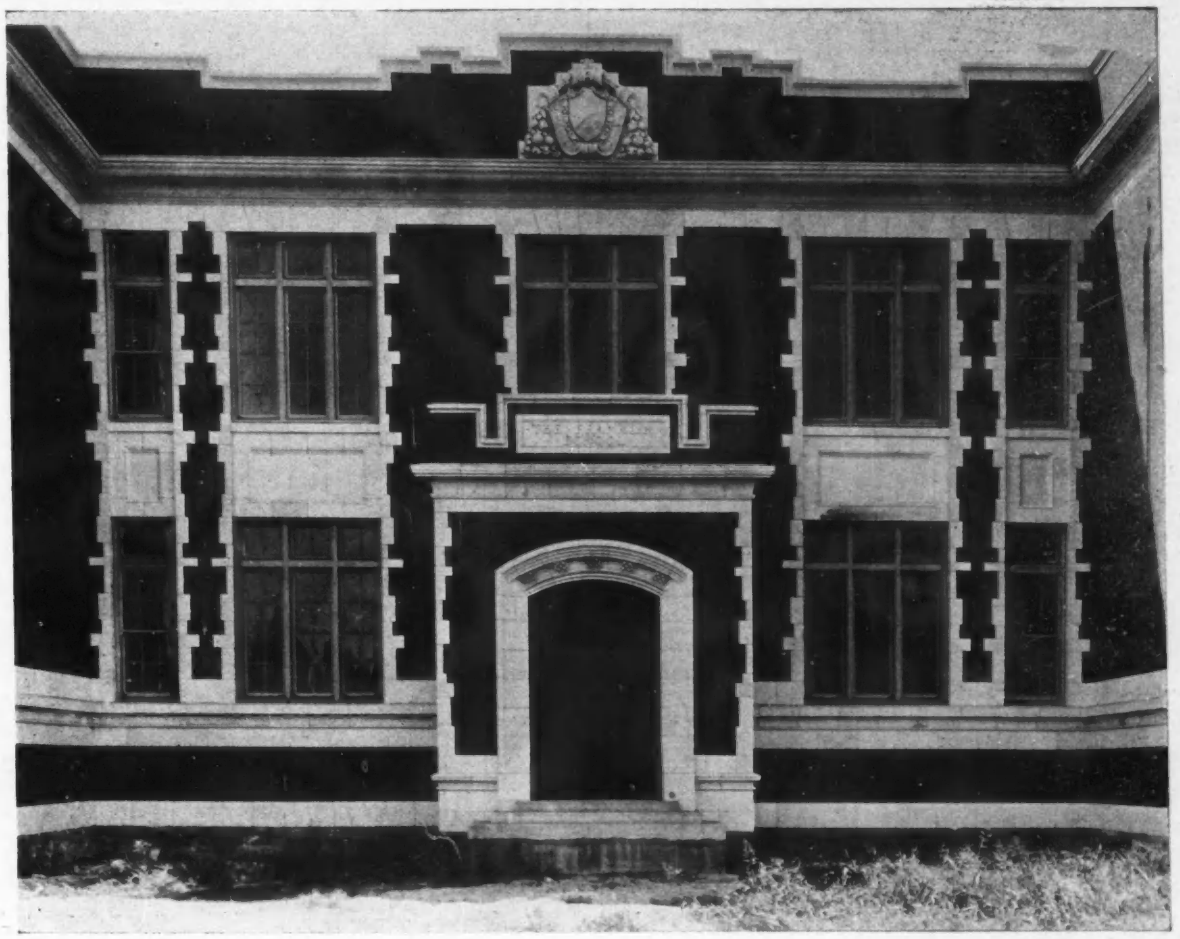

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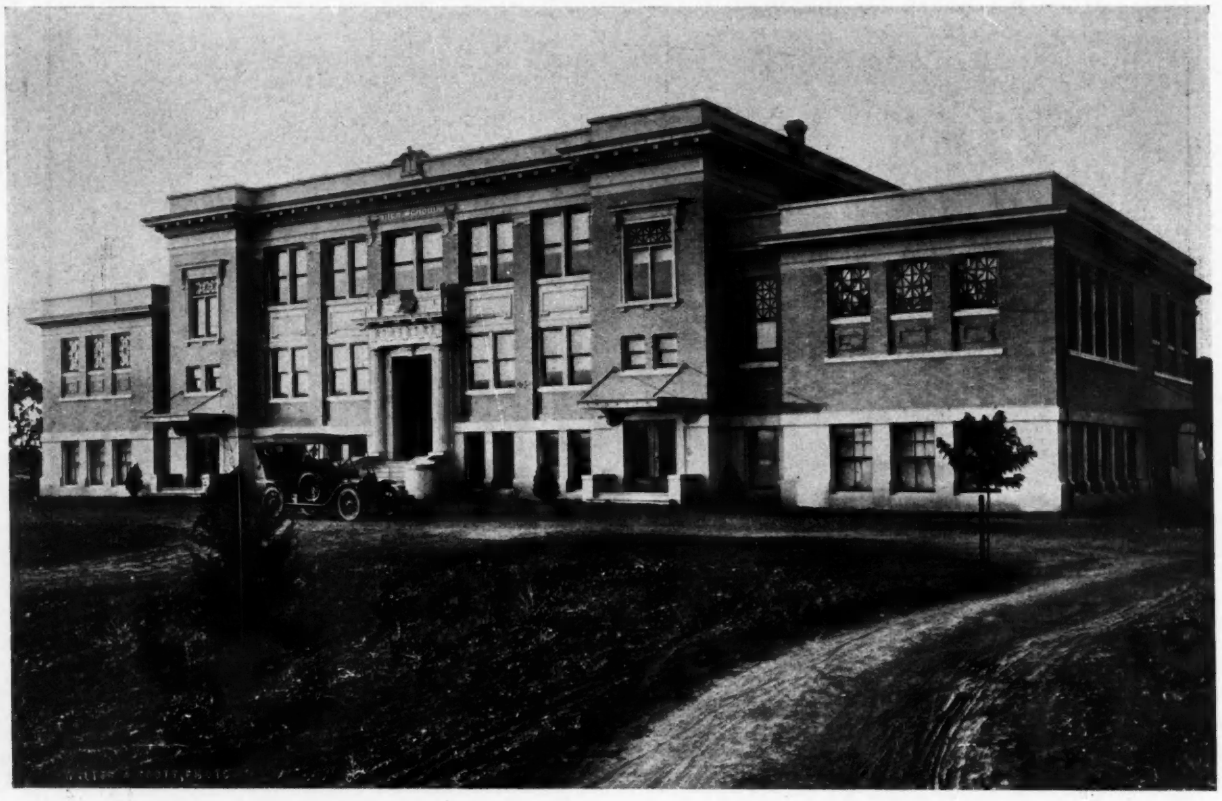

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